

Additional file 5

Alignment of Nox-domains of Nox and Duox proteins

Amino acid sequences were trimmed to the length corresponding to human Nox2 and aligned. The amino acid numbers were re-calculated to indicate those corresponding to the full-length sequences after alignment. Above the alignment, predicted domains of human Nox2, which contains six transmembrane domains TM(I) through TM(VI), two FAD binding subregions FAD1 and FAD2, and four NADPH-binding subregions NADPH1 through NADPH4, are shown. To describe sequences of the different species, we used the following naming: Hs (as *H. sapiens*), Bt (*B. taurus*), Cf (*C. familliaris*), Rn (*R. norvegicus*), Mm (*M. musculus*), Gg (*G. gallus*), Md (*M. domestica*), Xt (*X. tropicalis*), Dr (*D. rerio*), Tr (*T. rubripes*), Tn (*T. nigroviridis*), medaka (*O. latipes*), Ci (*C. intestinalis*), Sp (*S. purpuratus*), Dm (*D. melanogaster*), Ag (*A. gambiae*), Am (*A. mellifera*), Ce (*C. elegans*), At (*A. thaliana*), Dd (*D. discoideum*), Pa (*P. anserina*), An (*A. nidulans*), Mg (*M. grisea*), Fg (*F. graminearum*), Cc (*C. crispus*) and Py (*P. yezoensis*). Amino acids conserved among all Nox and Duox proteins (shown in Figure 6) are indicated by *asterisks* below the alignments.

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                                     _____ TM (I) _____
Hs-Nox1  -----MGNWVVNHWF SVLFLV VVWLG LNVFLF VDAFLKY 33
Cf-Nox1  -----MGNWVVNHWF SVLFLATW LG LNVFLF VHAF LSY 33
Mm-Nox1  -----MGNWLVNHWLSV LFLVSWL G LNI FLFVYA FLNY 33
Rn-Nox1  -----MGNWLVNHWLSV LFLVSWL G LNI FLFVYV FLNY 33
Gg-Nox1  -----MGNWLVNHWFSA AVLA AWL G INI FLFTYY FLFF 33
Xt-Nox1  -----MGNWIANNWF SVVVLATW LG LNI FIF INFF MIF 33
Tn-Nox1  -----MGNWIVNHGLT SFILV VVW G INI FLFVWF YLFY 33
Tr-Nox1  -----MGNWII NHGLT AFILV VVW G INI FLFVWF YLFY 33
O1-Nox1  -----MANWII NNGFP AVMV LVWMT INTFL FVWYY LQY 33
Dr-Nox1  -----MGNWII NHGLS AFIVV VVW M AINIAL FVHF YLFY 33
Mm-Nox2  -----MGNWAVNEGLS IFVILV VLG LNVFLF INYK VY 33
Rn-Nox2  -----MGNWAVNEGLS IFVILV VLG LNVFLF VKYK VY 33
Hs-Nox2  -----MGNWAVNEGLS IFVILV VLG LNVFLF VVYY RVY 33
Cf-Nox2  -----MGNWIE NEGLS IFVILV VLG LNVFLF IWFY G VY 33
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Gg-Nox2 -----MGNWVENEGLSIFVVLVWLG LNVFLFWWFYLAY 33
Xt-Nox2 -----MGNWIVNEGLSIAV IIVWLG LNYLFWNFYLVY 33
Tn-Nox2 -----MGNFAANEGLSVFV ILVWLG INAFVHFYMAF 32
Tr-Nox2 -----MGNFAANEGLSTFV ILVWLG INAFVHFYMAF 32
Ol-Nox2 -----MGNFVANEGLSIFV ILVWLG INAYL FVQFYMNF 32
Dr-Nox2 -----MGNFAANEGLSVFV ILVWLG INVFLFVYFYLAF 32
Hs-Nox3 -----MMGCWILNEGLSTILVLSWLG INFYLFIDTFYWY 32
Cf-Nox3 -----MMGCWILNESLSVILVLSWLG VNL YLFIDTFWCWY 32
Mm-Nox3 -----MPVCWILNESGSFV VALLWLA VNAYL FIDTFWY 32
Rn-Nox3 -----MPTCWILNESVSFV VALLWLA INIYLFIDTFWCWY 32
Gg-Nox3 -----MACWILNEKLSV LLLL VWLG LNL YLFIDTFHWY 33
Ci-Nox2 -----MNARLNGFLVNEFPKYIV FLLWLG LNGFLFGY YNFY 37
Sp-Nox2A -----MGDKFLNEGLKYFF LLLWLA ANVAYWV VTFVY 33
Sp-Nox2B -----AAWAI VNL I IWL VTFKY 18
Mm-Nox4 -----MAVSWRSWLANEGVKHLCLL I WLSLNVLLFWKTFLLY 37
Rn-Nox4 -----MALSWRSWLANEGVKHLCLL V WLSLNVLLFWKTFLLY 37
Hs-Nox4 -----MAVSWRSWLANEGVKHLCLF I WLSMNVLLFWKTFLLY 37
Cf-Nox4 -----MENAVMILCTEY YEHDEEY IDYRF I WLSLNVLLFWKAFLLY 41
Gg-Nox4 -----
Xt-Nox4 -----MALPCASWLSNEALKHLFLLS W LALNIGLFYKTFVY 37
Ol-Nox4 -----MAVSVRSWLANEAGKHFV LMLWLA ANT WFLD TYLLY 37
Tr-Nox4 -----MSVRSWIANEGGKFLV LMLWLG VNTW MFLNTFLLF 35
Ci-Nox4 -----MQLKNYLVDGLR LFIWVAWIS INASL FYFTFMY 35
Ag-Nox -----LLWTGFNFV VCKAFS NY 18
Pa-NoxA -----MGGLVPLLKKQLTGS --KILFHILFWTFHWGIFAYGWWKQ 37
Mg-NoxA -----MSVGEFLAKQLTAQ --KLFFNISFWG FHI GIFAYGWYKQ 36
Fg-NoxA -----MGSQLGFVELIKKQF VPG--KLLYHFLFWTFHWGIFAYGWWKQ 40
An-NoxA -----MGRYPLKSYFAPS --KLFFYTWFWGAHIAIFAYGWYHQ 35
Pa-NoxB RWTPLTRMLLSGEMTQERQKELTPREKFDKWMVNEGYRRIFVVFVFMFLHAILFAFSFVNF 83
Fg-NoxB RWTPLTRMLLSGEMTQEKQELSSREKFDKWMVNEGYRRFFVVFVFMILHALIFSACVHY 72
Mg-NoxB RWTPLTRMLLSGEMTQERQKELTPREKFDKWMVNEGYRRFFVVFVFMILHAMVFAFGVNY 87
Dd-NoxA -----MRLPTKEEIQRYVWNEGK LILVILYTLGNIAAFVYTFVH 37
Dd-NoxB -----KNEKIGLRSKIFKSKIFIKIRGWWWHRGISTYIMLFYIALNIGVGVHMFYNM 204
At-rbohC -----RFFLLDNWQRCWVIVLWFIVMAILF TYKIYQ 373
At-rbohG -----RFFVLD SWQRVWVIALWLTIMAILFAYKIYQ 325
At-rbohA -----KYFLFDNWKRVWVWALWIGAMAGLFTWKFMEY 366
At-rbohB -----SYFFLENWKRIWVLTWISICITLFTWKFLQY 319
At-rbohD -----KYFILDNWRQLWIMMLWLGICGGLF TYKFIYQ 398
At-rbohF -----VYIMQENWKRIWVLSLWIMIMIGLFLWKFFQY 409
At-rbohI -----LYSLQDNWKRIWVLTWVFIWAWLFWMKCYQY 397
At-rbohE -----VNNWQRSWVLLVWVWMLMAILFVWKFLEY 388
At-rbohH -----AELMHENWKKLWV LALWAI INVYLFM WKYEEF 338
At-rbohJ -----AELMYEHWKKI WVVTLWLA VNVVLFM WKYEEF 349
Hs-Nox5 -----WHNHRSQLFCLATYAGLHVLLFGLAASA 226
Cf-Nox5 -----WHNHRSHLLCLAAFAGLHLLLFALAASE 225
Bt-Nox5 -----WHNHRSHVLC LAVFVGLHMLLFALAASA 243
Md-Nox5 -----WHNCGKLAVLAVYIGLNILFLT LAALK 215
Xt-Nox5 -----WHNRSKLLFMCCYWCLNVLLFGLAAVN 224
Tr-Nox5 -----WHNCRKLLFLCMYAFFSLMLFVNAMLQ 151
Tn-Nox5 -----MLQHRSGAACYMLAKGCGQCLNFNCTFVMVAARAP 35
Gg-Nox5 -----WHNHRQLAFLGGYVSLNLLFLT LAALR 199
Ol-Nox5 -----WQNNRKLFLFGYGVNLLLFV VAMLR 238
Dr-Nox5 -----WHNNSRKLFFLCLYGLLNTFLFIMAMLK 129
Sp-Nox5A -----VHNRYRKILFLVVFILINVA LFT EAA YR 230
Sp-Nox5B -----RNHFSV IIFWIVFVMINAGLAAW GAYEG 179

Ag-Nox5	-----APYIKNNYVYLSFLTIVFTLINVGLFVSRAIQ-	280
Am-Nox5	-----KPYMKNNYVYIFFISIFILINVSLFVSRLYE-	282
Dm-Nox5	-----LAYMKNNQVFVTYLFFYITVNLCLFISRAIQ-	285
Dd-NoxC	-----TEKESFHSKRYLKEGSKLFFISLFFIINSILVITSFLN	601
Mg-NoxC	-----DKYLRDMSTFRVRAYWAVHGPEIAFLGIVVGLQLGLGIWQCH	243
Fg-NoxC	-----KSYIKRRLPGWRRIRSYWAVHGPEIVFLGVVISMQLAFGIWQLV	163
Cc-NoxD	-----MIPRSKPDVARPSARIEAYLSTHAFKVLFFAFYGAAVTLMFAWGFKAEFT	50
Py-NoxD	-----MGDDKPPPKSRVSRVESYLSTNGFVLTFLGLYILANVILFFFAATPERR	45
Xt-Duox1	-----YRRHIVCLIFFYGISAGLFAERAYYY	20
Xt-Duox2	-----YRRHIVCVVIFYGISVGLFLERAYHY	70
Gg-Duox	-----YRRHIVCVVLSAITAGLFAERAYYY	964
Tr-Duox	-----YRRHIVCSALVYGMAAGLCLERCYYY	990
Tn-Duox	-----YRRHIVCFIVVYGITAGLCLERCYYY	1081
Ol-Duox	-----YRRHIVCFIITYSITVGVTLERCYYY	1067
Dr-Duox	-----YRRHICTVVIYASAGLALERCYYY	1018
Mm-Duox2	-----YRRHIVCVTIFSAICIGLFAERAYYY	1032
Rn-Duox2	-----YRRHIVCVTIFSAICAGLFAERAYYY	1032
Hs-Duox2	-----YRRHIVCAIFSAICGVFADRAYYY	1063
Cf-Duox2	-----YRRHIVCVVFSACAGLFAERAYYY	815
Hs-Duox1	-----YRRHIGCVAVFYAIAGGLFLERAYYY	1066
Cf-Duox1	-----YRRHIGCVAVFYAITGGLFLERAYYY	1066
Rn-Duox1	-----YRRHIGCVAVFYITGALFLERAYYY	1062
Mm-Duox1	-----YRRHIGCVAVFYITGALFLERAYYY	1066
Ci-DuoxA	-----HRLQIFWLTLYLLVLGIFIERAYFY	1092
Ci-DuoxC	-----YANHIFCLSLYSLITAGVFLN-AFFV	957
Ci-DuoxD	-----YALHIFWTSLYIWIITIGVFLW-AFSM	1035
Sp-Duox	-----NRLQIFYVYVLYLLVLGAVFIERAYYY	1189
Dm-Duox	-----NRQNIFYLFLFYVVTIVLFVERFIHY	989
Ag-Duox	-----NRQNIFYLFLFYVITIVLFVERFIHY	990
Am-Duox	-----NRQNIFYLFFVYVTTIALFVERFIYY	995
Ci-DuoxB	-----YRRHIFCMVIFYGITIALVVERATFY	1010
Ce-Duox1	-----YRQHVFIVFCFVAINLVLFERFWHY	1009
Ce-Duox2	-----YRQHVFIFCFVAINIVLFFELFWHS	1015

TM (II)

Hs-Nox1	-----EKADKYYYTRKILGSTLACARASALCLNFNSTLILLP-VCRNLLSFLRG---	TCSFCRST 89
Cf-Nox1	-----EKADKYYYTREILGSTLAWARASARCLNFNSMLILLP-VCRNLLSFLRG---	TCSFCRRT 89
Mm-Nox1	-----EKSDKYYYTREILGTALALARASALCLNFNSMMLIP-VCRNLLSFLRG---	TCSFCNRT 89
Rn-Nox1	-----EKSDKYYYTREILGTALALARASALCLNFNSMILIP-VCRNLLSFLRG---	TCSFCNHT 89
Gg-Nox1	-----DRDERYFYTRAILGSALAWARASAKCLNFNSMLILLP-VCRNLLSFLRG---	SFSCCRRT 89
Xt-Nox1	-----EKGDSYSYTRRELLGSALAWARGSAACLNFNCLLILLP-VCRNLLSFLRG---	TCTCVQRS 89
Tn-Nox1	-----DLGDQFFYTRHLLGSALAWARAPAAVLNFCNMLILLP-VCRNLLSLLRG---	SFVCCGRS 89
Tr-Nox1	-----DLGERFFYTRHLLGSALAWARAPAAVLNFCNMLILLP-VCRNLLSFLRG---	SFVCCGRS 89
Ol-Nox1	-----DRDDDFYTRHLLGSALAWARAPAAVLNFCNMLILLP-VCRNLLSLIRG---	SFVCCSRT 89
Dr-Nox1	-----DQGERFEYTRRELLGSALAWARAPAAVLNFCNMLILLP-VCRNLLSLLRG---	SFVCCGRT 89
Mm-Nox2	-----DDGPKYNYTRKLLGSALALARAPAAACLNFCNMLILLP-VCRNLLSFLRG---	SSACCSTR 89
Rn-Nox2	-----DDEPKYNYTRKLLGSALALARAPAAACLNFCNMLILLP-VCRNLLSFLRG---	SSACCSTR 89
Hs-Nox2	-----DIPPKFFYTRKLLGSALALARAPAAACLNFCNMLILLP-VCRNLLSFLRG---	SSACCSTR 89
Cf-Nox2	-----NNGEEFFYTRKLLGFALPLARAPAAACLNFCNMLILLP-VCRNLLSFLRG---	SSACCSTR 89
Gg-Nox2	-----DLPQNFFYTRVLLGRALALARAPAAACLNFCNMLILLP-VCRNLLSFLRG---	SSACCSTR 89
Xt-Nox2	-----DEGEKYFYSRKLYGSALAWARAPAAACLNFNCLLILLP-VCRNLLSFLRG---	SSACCGRS 89
Tn-Nox2	-----LVERWFYTRVLLGHALSWARAPAAACLNFCNMLILLP-VCRNLLSFLRG---	SIQCCSRT 88
Tr-Nox2	-----LVDRWFYTRVLLGHALSWARAPAAACLNFCNMLILLP-VCRNLLSFLRG---	SIQCCSRT 88

O1-Nox2 -LVERWFYTRVLLGHALSARAPAACLNFNCMLILLP-VCRNLLSFLRG---SIQCCSRT 88
 Dr-Nox2 -LIDKYYYTRVILGHALSARAPAACLNFNCMLILLP-VCRNLLSFLRG---SIQCCSRT 88
 Hs-Nox3 EEEESFHYTRVILGSTLAWARASALCLNFNCMLILLP-VSRNLISFIRG---TSTCCRGP 90
 Cf-Nox3 EEEESFLYTRVILGSTLAWARASAVCLNFNCMLILLP-ISRNLISFMRG---TSTCCRGL 90
 Mm-Nox3 TEEEAFFYTRVILGSALAWARASAVCLNFNCMLILLP-VSRNFISLVRG---TSVCCRGP 90
 Rn-Nox3 AEEESFFYTRVILGSALAWARASAVCLNFNCMLILLP-VSRNFVSLVRG---TSVCCRGP 90
 Gg-Nox3 EDEDAYVYTRIMLGSTLAWARASATCLNFNCMLILLP-VSRNLISFLRG---ASACCGGA 89
 Ci-Nox2 NTKKTFYTRVLLGPALALARAPAACLNLNCLLVLLP-VCRNLLSLFRK---ACMCCPRR 93
 Sp-Nox2A EQGQYFYIRRTIGVGLSIAKAAGAALNLSMIILLP-ICRNLISFFRGCATNTLCRRS 92
 Sp-Nox2B MDNANYIYTKYLMKNGLPVARASACLNFNSMLILFP-VCRNMISYLRGSCSTKFSRRN 77
 Mm-Nox4 NQGPEYYYIHQMLGLGLC--RASASVNLNCSLILLP-MCRTVLAYLRGS--QKVPS-RR 93
 Rn-Nox4 NQGPEYYYIHQMLGLGLCCLSRASVNLNCSLILLP-MCRTVLAYLRGS--QKVPS-RR 93
 Hs-Nox4 NQGPEYHYLHQMLGLGLCCLSRASVNLNCSLILLP-MCRTLLAYLRGS--QKVPS-RR 93
 Cf-Nox4 NQGPEYHYLHQMLGLGLCCLSRASVNLNCSLILLP-MCRTLLAYLRGS--QKVPS-RR 97
 Gg-Nox4 ---PSYLTLPVVFQGLGCVSRASVNLNCSLILLP-MCRILLAFLRGS--QKVAS-RK 53
 Xt-Nox4 YSGPQYFYLHQMLGLGLCCLSRASVNLNCSLILLP-MCRTVIGLLRGP--KMNVIHWK 94
 O1-Nox4 STGQYHYLYQMLGLGLCISRASVNLNCSLILLP-MCRSLLTFIRGS--HTMST-RR 93
 Tr-Nox4 SSGEQYHYLYQMLGLGLCISRASVNLNCSLILLP-MCRSLLKFIRGT--HTVSS-RK 91
 Ci-Nox4 YNGIQFYHLHQMLGVLGCLISRAAACLNLNCSLILLP-MCRGLVTFMRGL--PRGVG-RQ 91
 Ag-Nox HHDEVYYYLSRILGNGLCVSRGTAPVNLVNTMALITLP-TCKTFNLLLHKL--FGRCSRTL 75
 Pa-NoxA AADARLAG-LNTLQYSVWLSRAGLVLSVDGMLILLP-VCRTIMRFIR-----PKI 87
 Mg-NoxA FSDPRLAG-LNTLTFVWISRGAGLVLSVDGMLILLP-VCRTIMRWIR-----PKI 86
 Fg-NoxA AVDPRLAG-LNTLKFVWISRGAGLVLSVDCMLILLP-VCRTVMRWIR-----PKI 90
 An-NoxA AKSEPLSP-LNVLYSVWISRGAGLVLTVDGTLILLP-MCRNLVRFIR-----PKL 85
 Pa-NoxB AVKENLQIARDTFGPTFMIAARSAALVHVDVALILFP-VCRTLISMARQ-----TPLN 135
 Fg-NoxB AKESLETSRQTFGPTFMIAARSAALVHVDVAIILFP-VCRTLISLLRQ-----TPLN 124
 Mg-NoxB AVKDNLQRARDTFGPTFMIAARSAALVHFDVALILFP-VCRTFISLARQ-----TPLN 139
 Dd-NoxA YYNSP---AFEVVGYGVCFARGCAQLKLNLCALILVP-VLRNLLSFLRG-----TFLN 89
 Dd-NoxB YHSD---IFKFLGLSFCFSRTAARLNLNSAVILLP-VLRNFLSWLRG-----TIVN 256
 At-rbohC RRSVPYVPMGDCVC---MAKGAETVKNMALILLP-VCRNTITWLRN----KTRLG- 422
 At-rbohG KNRAVYEVLPVCVC---LAKGAETLKNMALILLP-VCRNTITWLRN----KTRLG- 374
 At-rbohA RKRSAYEVMGVCVC---IAKGAETLKNMAMILLP-VCRNTITWLRN----KTKLS- 415
 At-rbohB KRKTVEVMGYCVT---VAKGSAETLKNMALILLP-VCRNTITWLRN----KSKLIG 369
 At-rbohD KNKAAVGMGYCVC---VAKGGAETLKNMALILLP-VCRNTITWLRN----KTKLG- 447
 At-rbohF KQKDAFHVMGYCLL---TAKGAAETLKNMALILFP-VCRNTITWLRN----STRLS- 457
 At-rbohI KHKDAFHVMGYCLV---MAKGAETLKNMALILLP-VCRNTITYLRN----STALS- 445
 At-rbohE REKAAFKVMGYCLT---TAKGAAETLKNMALVLLP-VCRNTITWLRN----STRAR- 436
 At-rbohH MRNPLYNITGRVCVC---AAKGAETLKNMALILVP-VCRKTLTILR-----STFLN- 386
 At-rbohJ TTSPLYNITGRCLC---AAKGTAELKNMALILVP-VLRRTLTFLR-----STFLN- 397
 Hs-Nox5 ---HRD-LGASVM---VAKGCGQCLNFDSCFIAVL-MLRRCLTWLRA-----TWLA- 275
 Cf-Nox5 ---HRA-RGASVM---VAKGCGQCLNLDGCFIAVL-MLRRCLTWLRA-----TWLA- 301
 Bt-Nox5 ---YRA-FGSSVM---VAKGCGQCLNFDSCFIAVL-MLRRCLTWLRA-----TWLA- 309
 Md-Nox5 ---YQS-SGTRIM---IARGGQCLNFNCSFIVVL-MLRRCLTWLRA-----TWLA- 281
 Xt-Nox5 ---HAS-LGGWIM---VAKGCGQCLNFNCTFIVVM-MLRRCLTWLRT-----TCVV- 290
 Tr-Nox5 ---HSY-GGGWYM---VAKGCGQCLNFNCTFIMVL-MLRRCLTWLRA-----TWVV- 217
 Tn-Nox5 AGRGLEPRVKRASP-----TCVQVL-MLRRCLTWLRA-----TWVV- 70
 Gg-Nox5 ---HFG-GSGWVA---AARGCGQCLNFNCPFIAMPMLRACTRLRA-----TPAG- 266
 O1-Nox5 ---HSD-GGVWLM---VARGCGQCLNFNCTFIVVL-MLRRCLTWLRA-----TWVVR- 287
 Dr-Nox5 ---HAD-GGLWIM---LARGCGQCLNLCNCTFVMVL-MLRRCLTWLRA-----TWVVR- 173
 Sp-Nox5A ---YAKKSNWCLI---TARGCGQCLNFNSAFVVL-MLRKTITLRT-----TKAAE- 279
 Sp-Nox5B YQSVSDERHPAAIS---IARSAGRCLSFECFVVL-MLRKLITLRLN-----TFLMS- 244
 Ag-Nox5 ---YRN--SNGFVI---MARACGQCLNFNCAFILVL-MLRQCITFLRT-----RGFTA- 329
 Am-Nox5 ---YRK--SNGYVM---LARACGQCLNFNCSFIVVL-MLRQCITFLRT-----HGFNS- 331
 Dm-Nox5 ---YRA--SNGFVI---IARACGQCLNFNCAWVVL-MLRHSLTYLRG-----RGLSS- 334
 Dd-NoxC VHANN-KRAIELFGPGVYITRIAAQLIEFNAAIILMT-MCKQLFTMIRN-----TKFK 653

Mg-NoxC	KYAS-GEQYQAAFQGWGVALAKLCAGALYPTFFFLILS-MSRYFSTFLRR-----SYHLS	296
Fg-NoxC	KYQT-TPGYRAAFQGWVMAKTCAGALYPTFFFLILS-MSRYFSTWLRR-----SYHIS	221
Cc-NoxD	FEDNFDMPHFNTVRWFVIGIARGMGYTLNLTAFVILL-ASRLLFKLRD-----SPLQL	103
Py-NoxD	LWP---VGHYR--RNLTVPARGAGNLIINFNSAVILLV-SARKFMSWLRT-----PLNM	98
Xt-Duox1	GFASPSSGIADATFIGLIISRGSAASISFMFSYMLLT-MCRNLITLLRET-----FLN	1072
Xt-Duox2	AFESQHRGISEVTMPGIIISRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	1122
Gg-Duox	AFASPSTGIAQTTFVGGIIISRGSAACISFMFSYILLT-MCRNLITVLRET-----FLN	1016
Tr-Duox	GFQAEESTGLPETSIVGVAFARGSAAAVSFLFPYMLLT-VCRNLITLCRET-----FLN	1042
Tn-Duox	GFQAEESTGLPETSIVGVAFARGSAAAVSFLFPYMLLT-VCRNLITLCRET-----FLN	1133
O1-Duox	GLQAEATGVPGTTVVGGIIVARGSAAGVSFLFPYMLLT-VCRNLITLCRET-----FLN	1119
Dr-Duox	GLQAHSSGIPETSMVDVLSVRSAAAISFLFPYMLLT-VCRNLITMCRET-----FLN	1070
Mm-Duox2	GFASPPTDIEETTYVGIILSRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	1084
Rn-Duox2	GFASPPTDIEETTYVGIILSRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	1084
Hs-Duox2	GFASPPSDIAQTTLVGIILSRGTAASVSMFSYILLT-MCRNLITFLRET-----FLN	1115
Cf-Duox2	AFASPPSGIAETTFVGIILSRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	867
Hs-Duox1	AFAAHHTGITDTRVGIILSRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	1118
Cf-Duox1	AFGAHMGITDTRVGIILSRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	1118
Rn-Duox1	AFAAHHSGITDTRVGIILSRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	1114
Mm-Duox1	AFAAHHSGITDTRVGIILSRGTAASISFMFSYILLT-MCRNLITFLRET-----FLN	1118
Ci-DuoxA	SVEREFAGLRRRAGYGVSIIRGSAASAMMFTYTSLLVT-MCRNTITALRET-----FLH	1144
Ci-DuoxC	VYSKYATGLYIGGPLMALARASAAALMFNFSTLLT-MCRNLITFLRET-----FLH	1009
Ci-DuoxD	TIFNKAAGLGVIAGNALPLARASAAALMFNISTLLT-MCKNILTSLRET-----QLH	1087
Sp-Duox	SVEREFAGLRRRAGFGVSVTRGSAASAMMFTYSSLLVT-MCRNTITKLRET-----FLH	1241
Dm-Duox	SFMAEHTDLRHIMGVGIATRGAASLSFCYSLLLT-MSRNLITKLKEF-----PIQ	1041
Ag-Duox	SFMAEHTDLRHIMGVGIATRGAASLSFCYSLLLT-MSRNLITKLKEF-----PIQ	1042
Am-Duox	SFMAEHTDLRHIMGVGIATRGAASLSFCYSLLLT-MSRNLITKLKEF-----SIQ	1047
Ci-DuoxB	AFGAEHGIRRVTEWGIISRSAAAISFHFSYILLT-MSRNLITCRET-----FLK	1062
Ce-Duox1	RYMAENRDLRRVMGAGIAITRGAAGALSFCMALILLT-VCRNLITLLRET-----VIA	1061
Ce-Duox2	RYLNEDRDLRRVMGAGIAITLSSAGALSFCMALILLT-VCRNLITLLRET-----VIA	1067

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TM (III)

Hs-Nox1	LRKQLD-HNLTfHKLVA-YMICLHT-----AIHIIAHLFNF-	123
Cf-Nox1	LRKQLD-HNLTfHKLVA-YMICLHT-----AIHIIAHLFNF-	123
Mm-Nox1	LRKPLD-HNLTfHKLVA-YMICIFT-----VIHIIAHLFNF-	123
Rn-Nox1	LRKPLD-HNLTfHKLVA-YMICIFT-----AIHIIAHLFNF-	123
Gg-Nox1	LRKQLD-HNLTfHKLVA-YALALLT-----AVHTIAHLFNL-	123
Xt-Nox1	MRKQLD-NNLAFHKLVG-YTIALMT-----AIHTIAHLFNV-	123
Tn-Nox1	MRKQLD-KNLSFHKLVA-YMIALMT-----AVHTVAHLLNV-	123
Tr-Nox1	MRKQLD-KNLSFHKLVA-YMIALMT-----AVHMAHLLNV-	123
O1-Nox1	MRKQLD-KNLSFHKLVA-YMIALMT-----AVHTVAHLLNL-	123
Dr-Nox1	VRKQLD-KNLTfHKLVA-YMIALMT-----AVHTIAHLFNA-	123
Mm-Nox2	IRRQLD-RNLTfHKMVA-WMIALHT-----AIHTIAHLFNV-	123
Rn-Nox2	IRRQLD-RNLTfHKMVA-WMIALHT-----AIHTIAHLFNV-	123
Hs-Nox2	VRRQLD-RNLTfHKMVA-WMIALHS-----AIHTIAHLFNV-	123
Cf-Nox2	IRRQLD-RNLTfHKLVA-WMIALHT-----AIHTIAHLFNV-	123
Gg-Nox2	VRRQLD-RNLTfHKMVA-WMIALHT-----AIHTIAHLFNV-	123
Xt-Nox2	LRRQLD-RNLTfHKMVA-WMIALHT-----AIHTGAHLFNV-	123
Tn-Nox2	AARQLD-RNLTfHKLVA-YMIAFHT-----AVHIVAHLFNF-	122
Tr-Nox2	AARQLD-RNLTfHKLVA-YMIAFHT-----AVHIVAHLFNF-	122
O1-Nox2	AARQLD-RNLTfHKLVA-YMIAFHT-----AVHIIAHLFNF-	122
Dr-Nox2	AARQLD-RNLTfHKLVA-YMIAFHT-----AVHIIAHLFNF-	122
Hs-Nox3	WRRQLD-KNLRfHKLVA-YGIAVNA-----TIHIVAHFNL-	124
Cf-Nox3	WRRQLD-KNLRfHKLVA-YGIAVNA-----TIHIVAHLCNL-	124

Mm-Nox3	WRRQLD-KNLNFHKLVA-YGIAVNS-----VIHVAHLFNL-	124
Rn-Nox3	WRRQLD-KNLKFHKLVA-YGIAVNS-----VIHVAHLFNL-	124
Gg-Nox3	PRRQLD-KNIAFHKVVA-YGIAVNA-----TIHVAHLINI-	123
Ci-Nox2	IRRVLD-KNIKFHMCMA-YMIVLMT-----LIHYFAHCFNV-	127
Sp-Nox2A	VRRQLD-KNLFHKTVA-YMIVVWT-----IVHVVAHAFNF-	126
Sp-Nox2B	LRRQLD-KNITFHKLIA-YAIGFFV-----ILHVGAHCFNL-	111
Mm-Nox4	TRRLD-KSKTLHITCG-VTICIFS-----GVHVAHLVNA-	127
Rn-Nox4	TRRLD-KSKTLHITCG-ITICIFS-----GVHVAHLVNA-	127
Hs-Nox4	TRRLD-KSRTFHITCG-VTICIFS-----GVHVAHLVNA-	127
Cf-Nox4	TRRLD-KSRTFHITCG-VTICIFS-----GVHVAHLVNA-	131
Gg-Nox4	TRRLD-KSKTFHVTG-VTVCIFS-----VLHVAHLVNA-	87
Xt-Nox4	TRRMLD-KHKTFFAACG-LAICLFS-----AHLVNA-----	123
Ol-Nox4	MRRLLD-KSKSFHVACG-IAICIFS-----AVHVAHLINV-	127
Tr-Nox4	TRRMLD-KYKTFHVACG-LAICIFS-----AIHVAHLANA-	125
Ci-Nox4	VRRLLD-RGRSFHILCG-YILCLLA-----GVHCAAHAYNA-	125
Ag-Nox	LVHYLE-KTKVLHLILG-CSLLIVA-----IVHVAHFVNI-	109
Pa-NoxA	KFIPLD-ENIWMHRQLA-YSMLLFT-----IHTAAHYVNF-	121
Mg-NoxA	RFIPLD-ENIWFHRQIA-YAMLIFS-----ITHTAAHYVNF-	120
Fg-NoxA	RFLPLD-ENLWMHRQLA-YSMLLFT-----CLHTGAHYVNF-	124
An-NoxA	RWLPLD-ENIWFHRQVA-YATLVFT-----ILHVAAHYVNF-	119
Pa-NoxB	GIIQFD-KNITFHITTA-WSIVFWS-----WVHTIAHWNNF-	169
Fg-NoxB	GILQFD-KNITFHIVTA-WSIVFWS-----WVHTIAHWNNF-	158
Mg-NoxB	GIIQFD-KNITFHITTA-WSIVFFS-----WVHTVAHWNNF-	173
Dd-NoxA	NYVPFD-KNIVFHKLIA-WVICFAT-----FGHVAHFVNF-	123
Dd-NoxB	NYIPID-KHLNFHKLCA-FMLFCCT-----IHCVGHYISF-	290
At-rbohC	RVVPFD-DNLNFHKVIA-VGIIVGV-----TMHAGAHLACD-	456
At-rbohG	VFVPFD-DNLNFHKVIA-VGIAIGV-----AIHVSHLACD-	408
At-rbohA	AIVPFD-DSLNFHKVIA-IGISVGV-----GIHATSHLACD-	449
At-rbohB	SVVPFD-DNINFHKVVA-FGIAVGI-----GLHAISHLACD-	403
At-rbohD	TVVPFD-DSLNFHKVIA-SGIVVGV-----LLHAGAHLTCD-	481
At-rbohF	YFVPFD-DNINFHKTIA-GAIVVAV-----ILHIGDHLACD-	491
At-rbohI	HSVFPD-DCINFHKTIS-VAIISAM-----LLHATSHLACD-	479
At-rbohE	ACVPFD-DNINFHKIIA-CAIATGI-----LVHAGTHLACD-	470
At-rbohH	RVVPFD-DNINFHKVIA-YMIAFQA-----LLHTALHIFCN-	420
At-rbohJ	HLIPFD-DNINFHKLIA-VAIAVIS-----LLHTALHMLCN-	431
Hs-Nox5	QVLPLD-QNIQFHQLMG-YVVVGLS-----LVHTVAHTVN--	307
Cf-Nox5	QVLPLD-QNIQFHQFVG-YVIVVLS-----LVHTVAHIVNF-	335
Bt-Nox5	QVLPLD-HNIQFHQLMG-YVVVGLS-----LVHTVAHVNF-	343
Md-Nox5	RVLPLD-QNVEFHQLIG-YVVVGFV-----FLHTTAHVNF-	315
Xt-Nox5	RFLPLD-QNVVHLELIG-YVIFVLT-----VIHTAAHVTFN-	324
Tr-Nox5	RVLPLD-QNILLHQIVG-YAILFYT-----LLHTSAHIFNF-	251
Tn-Nox5	RVLPLD-QNILLHQIVG-YAILFYT-----LLHTCAHVNFNG	105
Gg-Nox5	RALPLE-HCVLHQVPG-SAVLALA-----VLHAGAHVANYG	301
Ol-Nox5	-VLPLD-QNILLHQIVG-YAIFCFV-----LGHAIAHVVN--	319
Dr-Nox5	-VLPLD-QNILLHQIVG-YAILIFS-----VGHTGAHIMN--	205
Sp-Nox5A	-ILPTD-QNIVFHKLVG-IFIALLS-----GIHTLGHIGNAW	313
Sp-Nox5B	-VLPLD-QHVVIHKIVA-VFIIILS-----VIHTAGHIANIG	278
Ag-Nox5	-FLPLD-QHIYHLKLTG-VLVAIFS-----LVHTIMHLNFNT	363
Am-Nox5	-VLPLD-QHIYHLKVTG-GLICVFS-----IAHTLMHLLNFG	365
Dm-Nox5	-YLPLD-HHVYLHKLGT-ITISVLS-----LIHTIMHLNFNS	368
Dd-NoxC	FLFPVD-KYMTFHKLIG-YTLIIAS-----FLHTIGWIVGM-	687
Mg-NoxC	RFINWD-LSQEFHIKIS-IVALVLA-----SLHALGHLSG--	329
Fg-NoxC	RFFNWD-LSQEFHIRIS-CVAILLA-----TLHATIGLGT--	254
Cc-NoxD	-VLPDAAFPALHIVVGY-----TIFFAVLVHGSFHFVWLI	138
Py-NoxD	-VVPFDKAMPAFHMLVGR-----VFLAASVVHVGPHLPVYV	133

Xt-Duox1	QYIPFD-SAVDFHRLIA-VTALVLS-----	ILHSLGHLVNVY	1107
Xt-Duox2	QYIPFD-AAVDFHRLVA-KTAIIILT-----	EFKLLFSHQTDIK	1158
Gg-Duox	RYIPFD-AAVDFHRWIA-MAALIFS-----	VLHTAGHLVNVY	1051
Tr-Duox	RYIPFD-AAIDFHRFMA-MAAIVLS-----	VVHTLAHVVNIY	1077
Tn-Duox	RYVFPD-AAIDFHRLEMA-MTAIVLAGWRSRYEGTHLRARKLTAASPPPVVHTLAHVVNIY		1191
O1-Duox	RFIPFD-AAIDFHRSLA-MTAVVLS-----	VAHSLAHVVNIY	1154
Dr-Duox	RYIPFD-AAIDLHRQMA-ATALILS-----	VVHSLGHLVNVY	1105
Mm-Duox2	RYIPFD-AAVDFHRWIA-MAAVVLA-----	VLHSAHGVNVY	1119
Rn-Duox2	RYIPFD-AAVDFHRWIA-MAAVVLA-----	VVHSLGHLVNVY	1119
Hs-Duox2	RYVFPD-AAVDFHRWIA-MAAVVLA-----	ILHSAHGVNVY	1150
Cf-Duox2	RYVFPD-AAVDFHRWIA-MAAVVLA-----	ILHSAHGVNVF	902
Hs-Duox1	RYVFPD-AAVDFHRLIASTAIIPVA-----	VLHSGHVNVY	1153
Cf-Duox1	RYVFPD-AAVDFHRLIASTAIIVLTG-----	RALDAGHVNVY	1154
Rn-Duox1	RYIPFD-AAVDFHRFIASIAIILT-----	VLHSAHGVNVY	1149
Mm-Duox1	RYIPFD-AAVDFHRLIASTAIILT-----	VLHSAHGVNVY	1153
Ci-DuoxA	LYIPFD-SAITMHRIIAWLALFFTG-----	MHIIGHSLNIY	1179
Ci-DuoxC	RFIPFD-SAVTMHRIVAWMALAFTA-----	LHILAHGINFY	1044
Ci-DuoxD	LYIPFD-AAVAFHKLVAWMALFFTA-----	LHIIAHGINFY	1122
Sp-Duox	RYVFPD-SALNMHKLIAMLALFFSI-----	MHTIGHGINFY	1276
Dm-Duox	QYIPLD-SHIQFHKIAACTALFFSV-----	LHTVGHIVNFY	1076
Ag-Duox	QYIPLD-SHIQFHKIAACTALFFSL-----	LHTVGHIVNFY	1077
Am-Duox	QYIPLD-SHIQFHKIAACTALFFSV-----	LHTVGHMVNFY	1082
Ci-DuoxB	NFIPFD-SAVAFHKIAYVALVETI-----	FHVLGHASNFY	1097
Ce-Duox1	QYIPFD-SAIAFHKIVALFAAFWAT-----	LHTVGHCVNFY	1096
Ce-Duox2	QYIPFD-SAIAFHKIVALFTLFWST-----	LHTIGHCVNFY	1102
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Hs-Nox1	-----DCYSRSRQA-----	TDGSLASILSSLSHDEKKG	151
Cf-Nox1	-----ERYRSRQA-----	TDGSLASILSTLSHQGKEE	151
Mm-Nox1	-----ERYRSRQA-----	MDGSLASVSSLSHPEKE-	150
Rn-Nox1	-----ERYRSRQA-----	MDGSLASVSSLFHPEKE-	150
Gg-Nox1	-----ERYNHSQA-----	NDGSLHAVLSKMHLDQSN-	150
Xt-Nox1	-----ERYCDAQK-----	KDTPGELSSIG---ED	147
Tn-Nox1	-----EWYNSRQG-----	VYDELSTALSKLDDAN--G	149
Tr-Nox1	-----EWYNSRQG-----	VYDKLSTALSNELETK--N	149
O1-Nox1	-----EWNNSKLG-----	VYGKLSTALSNELEDEG--N	149
Dr-Nox1	-----ERYSNSLEG-----	EDGLAFELSLLDSSSELN	151
Mm-Nox2	-----EWCVNARVG-----	ISDRYSIALSDIGDNE--N	149
Rn-Nox2	-----EWCVNARVG-----	TSDPYSVALSNIGDKE--N	149
Hs-Nox2	-----EWCVNARVN-----	NSDPYSVALSELGDRQ--N	149
Cf-Nox2	-----EWCVNARVN-----	NSDVYSIALSNLGDNP--G	149
Gg-Nox2	-----EWSVHARVE-----	EEGTLAAVLSRLGDSNP--N	149
Xt-Nox2	-----ERLVDARVE-----	ANGTIQAALTDLGDRE--G	149
Tn-Nox2	-----EFFMDAQLNR-----	NSSYLPFILSEIGTGD--N	149
Tr-Nox2	-----EFFMDAQLNR-----	NSSYLPFILSEIGTGD--N	149
O1-Nox2	-----EYFMDAQLNR-----	NHSHLPFILSEIGNDE--N	149
Dr-Nox2	-----ERFMDSQLMI-----	NSSHLPYVLSQIGNND--N	149
Hs-Nox3	-----ERYHWSQSE-----	EAQGLLAALSCLGNTP--N	150
Cf-Nox3	-----QRYHWSQSA-----	EVQGLPATLSKLGNAF--N	150
Mm-Nox3	-----ERYHLGQAK-----	DAEGLLAALSCLGDAP--N	150
Rn-Nox3	-----ERYHLGQAK-----	DAEGLLAALSCLGNAP--N	150
Gg-Nox3	-----ERYHNSQSK-----	EAGGLQNKLSGLGKRP--N	149
Ci-Nox2	-----DFFTSAYQSKILATDTPAIIQKKLIAKLIQIGNNG--N		164

Sp-Nox2A	-----RNLYNHRCVTT-----DNDELCEGISATGRKFKAK	157
Sp-Nox2B	-----QNLYNG-RKATS-----EDDWLANRLSQP--SFDLN	139
Mm-Nox4	-----LNFSVNYSED-----FLELNAARYQNEDPR---	152
Rn-Nox4	-----LNFSVNYSEH-----FLALNAARYQNEDPR---	152
Hs-Nox4	-----LNFSVNYSED-----FVELNAARYRDEDPR---	152
Cf-Nox4	-----LNFSVNYNED-----FTELNAARYRDEDPR---	156
Gg-Nox4	-----LNFSENYNED-----FLAINAANYRGEDPR---	112
Xt-Nox4	-----VNFSVNYNHE-----FPSINVARYKN-----	144
O1-Nox4	-----VNFSAGFSED-----FPALNLARYKGEDPK---	152
Tr-Nox4	-----ANFSTSYSEE-----FPSLNVARYRGEDPK---	150
Ci-Nox4	-----VYFSKYNSR-----YKDLNVAKYSNQNPL---	150
Ag-Nox	-----VNFIDNYDER-----YREINWANGPDDNVL---	134
Pa-NoxA	-----YNVEKTQ-----IRPVTAVQIHVYQP---	142
Mg-NoxA	-----FNVERLQ-----IRAQTAVQIHYAQP---	141
Fg-NoxA	-----YNVEITQ-----IRPVTALQIHYAQP---	145
An-NoxA	-----YNIERKQ-----LRPETALQIHYAQP---	140
Pa-NoxB	-----AQVAAKNN-----LGIYGWLLANFVSG----	191
Fg-NoxB	-----AQVAIKYN-----LGIYGWLLANFVSG----	180
Mg-NoxB	-----AQIAAQQK-----LGIYGWLLANFVSG----	195
Dd-NoxA	-----R-LYQDITPQEYK-----RILGIDYPNLTPIKYA---	151
Dd-NoxB	-----KKINDDVLKIDDG-----KSVAGDYLINININFPDEK	322
At-rbohC	-----FPRLHATPEAYR-----PLRQFFGDEQPKSYWH--	485
At-rbohG	-----FPLLIAATPAEYM-----PLGKFFGEEQPKRYLH--	437
At-rbohA	-----FPRLIAADEDQYE-----PMEKYFG-PQTKRYLD--	477
At-rbohB	-----FPRLHAKNVEFE-----PMKKFFGDERPENYGW--	432
At-rbohD	-----FPRLIAADEDTYE-----PMEKYFGDQ-PTSYWW--	509
At-rbohF	-----FPRIVRATEYDYN-----RYLFHYFQTKQPTYFD--	520
At-rbohI	-----FPRLASTDTDYK-----RYLVKYFGVTRPTYFG--	508
At-rbohE	-----FPRIINSSPEQFV-----LIASAFN-GTKPTFKD--	498
At-rbohH	-----YPRLSSCSYDVFL-----TYAGAALGNTQPSYLG--	449
At-rbohJ	-----YPRLSSCPYNFYS-----DYAGNLLGAKQPTYLG--	460
Hs-Nox5	-----FVLQAQAEASP-----FQFWELLLTTRPG-IG--	333
Cf-Nox5	-----ALQAQAEAS-----PFQFWELLLTTRPG-IG--	360
Bt-Nox5	-----ALQAQSETS-----PFRFWELLLTTRPG-IG--	368
Md-Nox5	-----AQLAQSENS-----TFQFWEYLLTTRPG-IG--	340
Xt-Nox5	-----TLINLTEKTG-----AYTFWEYLLTTRPG-IG--	350
Tr-Nox5	-----VQLSESS-----GFTLWEYLLTTRPG-IG--	274
Tn-Nox5	TPHTHARTVFPDAEGTCACFPALQRTSESS-----GFTLWEYLVTTTRPG-IG--	152
Gg-Nox5	-----RLAQDGHG-----ALSEFLLVARPG-GG--	323
O1-Nox5	-----FDLTSTNLSQHSE-----FLLWEYLLTTRPM-IG--	347
Dr-Nox5	-----FARLSQNDGAYQ-----LWEYLFTIRPG-IG--	230
Sp-Nox5A	-----FVEKTTDGNVTMS-----ALLFTNPHLTSLG-LA--	341
Sp-Nox5B	-----LIYQVENVNGTTA-----AWILDVLRPFPG-LG--	306
Ag-Nox5	-----TIIVYDPVNLANN-----YTTAEWLFTARPGLFG--	392
Am-Nox5	-----TIIVYDEILNHN-----YTLSEWLLTSRPFALFG--	394
Dm-Nox5	-----IIVINDPNINAGH-----YTIGEWLLTDRPGLFG--	397
Dd-NoxC	-----AVATGKPD-----NIFYDCLAPHFKFRPTVW	713
Mg-NoxC	-----TFNWGSRPER-----QDAVGVLGEGDQVPRP--	355
Fg-NoxC	-----SFVHGSDPAN-----EDAVAEALGPDKVPRP--	280
Cc-NoxD	-----TWDAWTWG-----	146
Py-NoxD	-----VSKPWGPG-----	141
Xt-Duox1	-----IFTIIPLS-----VLSCLFPTVFVDDGSDHPNK	1135
Xt-Duox2	-----LMIVFTLRL-----CMSCYFLQATYSNDNVLSLN	1187
Gg-Duox	-----IFSVTPLS-----VLSCLFSSVFMNDGP-----	1074
Tr-Duox	-----IFSLSDLS-----ILSCLFPKVFRRNNGSERPMK	1105

Tn-Duox	-----IFSMSDLS-----	ILACLFPKVFLNNGSELPMK	1219
O1-Duox	-----IFSISDLS-----	ILSCLFPKVLNNGSELPPK	1182
Dr-Duox	-----IFCISDLS-----	ILACLFPKVFVNNGSELPMK	1133
Mm-Duox2	-----IFSVSPLSLMA-----	CVFPNVFVNDGSKFPPKYY--	1149
Rn-Duox2	-----IFSVSPLSLMT-----	CVFPNVFVNDGSKLPPKYY--	1149
Hs-Duox2	-----IFSVSPLSLLA-----	CIFPNVFNNDGSKLPQKFY--	1180
Cf-Duox2	-----IFSVSPLSLLA-----	CIFPNIFMNDGSQLPQKFY--	932
Hs-Duox1	-----LFSISPLSVLS-----	CLFPGLFHDDGSELPQKYY--	1183
Cf-Duox1	-----LFSISPLSVLS-----	CLFPGLFHNDGSEFPQKYY--	1184
Rn-Duox1	-----LFSISPLSVLS-----	CLFPDLFHDDGSEFPQKYY--	1179
Mm-Duox1	-----LFSISPLSVLS-----	CLFPGLFHDDGSEFPQKYY--	1183
Ci-DuoxA	-----AISTQTPGD-----	LTCLFRDFWRT--SDVLPK	1205
Ci-DuoxC	-----SIVTQSPDD-----	MACLFRDMWYP--SDYIPT	1070
Ci-DuoxD	-----SIQTQTPSD-----	LLCLFRDLWFP--SDYRPT	1148
Sp-Duox	-----HISTQTADD-----	LTCYFRDFFHR--SHELPK	1302
Dm-Duox	-----HVSTQSHEN-----	LRCLTREVHFA--SDYKPD	1102
Ag-Duox	-----HVSTQSIEN-----	LKCLTKEVHFT--SDYRPD	1103
Am-Duox	-----HVSTQPLAH-----	LRCLTSELSFP--SDARLT	1108
Ci-DuoxB	-----HFCVHPLPV-----	LACLFPKIFVDDGSDLPKS	1125
Ce-Duox1	-----HVGTQSQEG-----	LACLQEAFFG--SNFLPS	1122
Ce-Duox2	-----HVGTQSDRG-----	LACLQETFFG--SDVVPT	1128

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Hs-Nox1	G--SWLNPIQ----	SRNTTVEYVFTSIA-----	174
Cf-Nox1	D--SWLNPMQ----	SPNMTVEYVFTSIA-----	174
Mm-Nox1	D--SWLNPIQ----	SPNMTVMYAAFTSIA-----	173
Rn-Nox1	D--SWLNPIQ----	SPNVTVMYAAFTSIA-----	173
Gg-Nox1	--KWLNPIH----	SNQTTVEYVAFITIP-----	172
Xt-Nox1	G--TWLNPVR----	SPTVTPPYFAFTTIA-----	170
Tn-Nox1	T--TYLNPIR----	ITDLIPTYFAFTTIA-----	172
Tr-Nox1	T--TYLNPIR----	SPTLS--TYFVFTTIA-----	171
O1-Nox1	E--TFLNPLQHIEA--	DPQKPKIFAFTSIA-----	176
Dr-Nox1	T--TYLNPPF----	SNSTPMIFVFTSIA-----	174
Mm-Nox2	E--EYLNFARE--KI--	KNPEGGLYVAVTRLA-----	175
Rn-Nox2	E--EYLNFARE--KI--	KNPEGGLYVAVTRLA-----	175
Hs-Nox2	E--SYLNFARE--RI--	KNPEGGLYLAFTLLA-----	175
Cf-Nox2	E--SYLNFARE--RI--	KNPEGGLYVAVTLLA-----	175
Gg-Nox2	E--SYINFYRQ--TI--	PNPVGGLYVAFYLLA-----	175
Xt-Nox2	E--SYLNFVRS--RV--	PNPIGGINVAFTFLA-----	175
Tn-Nox2	A--SFLNPIRT--NE--	TN--PTIVMFTTIA-----	172
Tr-Nox2	A--SFLNPIRT--NE--	TN--PTIVMFTTIA-----	172
O1-Nox2	V--SFLNPIRS--NE--	TKS--PTIVMFTTIA-----	173
Dr-Nox2	R--SYLNPIRS--ND--	TN--PTIVMFTTVA-----	172
Hs-Nox3	E--SYLNPVR----	TFPTNTTELLRTIA-----	173
Cf-Nox3	E--SYLNPIR----	TFHTNTITELLTIA-----	173
Mm-Nox3	E--SYLNPVR----	TFDMGTTTELLMTVS-----	173
Rn-Nox3	E--SYLNPVR----	TLYTGTTTQLLMTVS-----	173
Gg-Nox3	E--SYLNPIR----	TYETNTTGEVLTIA-----	172
Ci-Nox2	E--TYLNPIR----	KSVFVGAFFLLTG-----	186
Sp-Nox2A	PEDNWLNPVIGAKTL	PAGLGLIEQALPIA-----	187
Sp-Nox2B	P----FKTIRSSD--	VSLGLVIGPGLSLLA-----	163
Mm-Nox4	-----	KLLFTTIP-----	160
Rn-Nox4	-----	KLLFTTVP-----	160

Hs-Nox4	-----KLLFTTVP-----	160
Cf-Nox4	-----KLLFTTVP-----	164
Gg-Nox4	-----KLLFATVP-----	120
Xt-Nox4	-----EVVP-----	148
O1-Nox4	-----LIIFTTIP-----	160
Tr-Nox4	-----WIILTIP-----	158
Ci-Nox4	-----LMLVTSLS-----	158
Ag-Nox	-----RLLFATPT-----	142
Pa-NoxA	-----G-----	143
Mg-NoxA	-----G-----	142
Fg-NoxA	-----G-----	146
An-NoxA	-----A-----	141
Pa-NoxB	-----P-----	192
Fg-NoxB	-----P-----	181
Mg-NoxB	-----P-----	196
Dd-NoxA	-----FATLA-----	156
Dd-NoxB	Y-----LFFKSVP-----	330
At-rbohC	-----FVNSVE-----	491
At-rbohG	-----FVKSTE-----	443
At-rbohA	-----FVQSVE-----	483
At-rbohB	-----FMKGT-----	438
At-rbohD	-----FVKGVE-----	515
At-rbohF	-----LVKGPE-----	526
At-rbohI	-----LVNTPV-----	514
At-rbohE	-----LMTGAE-----	504
At-rbohH	-----LMLTSV-----	455
At-rbohJ	-----LMLTPV-----	466
Hs-Nox5	-----WVHGSA-----	339
Cf-Nox5	-----WIHGLA-----	366
Bt-Nox5	-----WVHGSA-----	374
Md-Nox5	-----WVYGTA-----	346
Xt-Nox5	-----WISGTA-----	356
Tr-Nox5	-----WVKGTA-----	280
Tn-Nox5	-----WVKGTA-----	158
Gg-Nox5	-----GFGGTA-----	329
O1-Nox5	-----WVKGTA-----	353
Dr-Nox5	-----WVNGTA-----	236
Sp-Nox5A	-----PVSGSA-----	347
Sp-Nox5B	-----LVEGSC-----	312
Ag-Nox5	-----LIGGCA-----	398
Am-Nox5	-----LVRGYA-----	400
Dm-Nox5	-----LIPGCA-----	403
Dd-NoxC	E-----MIFNSLP-----	721
Mg-NoxC	-----YSAYVSSLP-----	364
Fg-NoxC	-----YIDYVRSVP-----	289
Cc-NoxD	-----LWSFNMSV-----	154
Py-NoxD	-----YNGFTQLF-----	149
Xt-Duox1	Y-----YWWFFETVP-----	1145
Xt-Duox2	L-----HPECLPLLT-----	1197
Gg-Duox	-----DPFPILPFT-----	1083
Tr-Duox	W-----SWWFFQTV-----	1115
Tn-Duox	W-----SWWFFETVPGTAEVKMVNLSHRKMPVHPGCRKATRTP	1259
O1-Duox	W-----YWWFLQTV-----	1192
Dr-Duox	W-----TFWFFKTV-----	1143
Mm-Duox2	-----WWFFETVP-----	1157

Rn-Duox2	-----WWFFETVP-----	1157
Hs-Duox2	-----WWFFQTV-----	1188
Cf-Duox2	-----WWFFQTV-----	940
Hs-Duox1	-----WWFFQTV-----	1191
Cf-Duox1	-----WWFFQTV-----	1192
Rn-Duox1	-----WWFFQTV-----	1187
Mm-Duox1	-----WWFFQTV-----	1191
Ci-DuoxA	FH-----YWCWQTIT-----	1215
Ci-DuoxC	FV-----FWLFTIT-----	1080
Ci-DuoxD	FV-----FWCLQTL-----	1158
Sp-Duox	FH-----YAWGTIT-----	1312
Dm-Duox	IT-----FWLFTVT-----	1112
Ag-Duox	IT-----YWLFTIT-----	1113
Am-Duox	IS-----FWLFRVT-----	1118
Ci-DuoxB	LT-----WWFFETIT-----	1135
Ce-Duox1	IS-----YWFSTIT-----	1132
Ce-Duox2	LS-----YWFYGTIT-----	1138

	<u>TM(IV)</u>	<u>TM(V)</u>	
Hs-Nox1	-----GLTGVIMTIALILMVTSAFERR-----	-----SYFEVFWYTHHLFIF-----	213
Cf-Nox1	-----GLTGVIITIALVLMVTSAMEFIRR-----	-----SYFEVFWYTHHIFII-----	213
Mm-Nox1	-----GLTGVIATVALVLMVTSAMEFIRR-----	-----NYFELFWYTHHLFIV-----	212
Rn-Nox1	-----GLTGVVATVALVLMVTSAMEFIRR-----	-----NYFELFWYTHHLFII-----	212
Gg-Nox1	-----GLTGVIITLALILMITSSTEFIRR-----	-----NYFEVFWYTHHLFII-----	211
Xt-Nox1	-----GLTGVVITLALILMITSSTEFIRR-----	-----CYFEVFWYTHHLFVI-----	209
Tn-Nox1	-----GLTGVIITLALILIISSMEVIRR-----	-----SYFEVFWYTHHLFII-----	211
Tr-Nox1	-----GLTGVIITLALILIISSMEVIRR-----	-----SYFEVFWYTHHLFII-----	210
O1-Nox1	-----GLTGVVITLALILIISSMEVIRR-----	-----SYFEVFWYTHHLFIV-----	215
Dr-Nox1	-----GLTGVVITLALILMITSSTEFIRR-----	-----SYFEVFWYTHHLFIV-----	213
Mm-Nox2	-----GITGIVITLCLILIISSSTKTIRR-----	-----SYFEVFWYTHHLFVI-----	214
Rn-Nox2	-----GITGIVITLCLILIISSSTKTIRR-----	-----SYFEVFWYTHHLFVI-----	214
Hs-Nox2	-----GITGIVITLCLILIISSSTKTIRR-----	-----SYFEVFWYTHHLFVI-----	214
Cf-Nox2	-----GITGIVITLCLILIISSSTKTIRR-----	-----SYFEVFWYTHHLFVI-----	214
Gg-Nox2	-----GLTGVIITLALILIISSSTKIIRR-----	-----SYFEVFWYTHHLFVI-----	214
Xt-Nox2	-----GLTGVVITLALILIISSSTKTIRR-----	-----SYFEVFWYTHHLFVI-----	214
Tn-Nox2	-----GLTGVAITLALILIISSMEVIRR-----	-----SYFEVFWYTHHLFVI-----	211
Tr-Nox2	-----GLTGVAITLALILIISSMEVIRR-----	-----SYFEVFWYTHHLFII-----	211
O1-Nox2	-----GLTGVVITLALILIISSMEVIRR-----	-----SYFEVFWYTHHLFVI-----	212
Dr-Nox2	-----GLTGVVITLALILIISSMEVIRR-----	-----SYFEVFWYTHHLFIV-----	211
Hs-Nox3	-----GVTGLVISLALVLMITSSTEFIRQ-----	-----ASYELFWYTHHVFIV-----	212
Cf-Nox3	-----GVTGLIISLALVLMITSSTESIRQ-----	-----VSYELFWYTHHVFII-----	212
Mm-Nox3	-----GITGLGISLALVFIMTSSTEFIRR-----	-----SSYELFWYTHHIFVF-----	212
Rn-Nox3	-----GITGLVISLALILMITSSTEFIRQ-----	-----SSYELFWYTHHIFIF-----	212
Gg-Nox3	-----GVTGVMITVAFVLIVTSSTELIRR-----	-----SCYEVFWYTHHLFVV-----	211
Ci-Nox2	-----GWTGVIIITLSLFFMVTSSLEFIRR-----	-----SYFEVFWYTHHLFIV-----	225
Sp-Nox2A	-----GWSGAVTLALILMFSSATEFIRR-----	-----SYFETFWYTHHLFIV-----	226
Sp-Nox2B	-----GWTGAVLALTYILMFTSAFIR-----	-----YFETFWYTHHLFVI-----	201
Mm-Nox4	-----GLTGVMVVVFLMVTASTYAIRV-----	-----SNYDIFWYTHNLFFV-----	199
Rn-Nox4	-----GLTGVMVVVFLMVTASTYAIRV-----	-----SNYDIFWYTHNLFFV-----	199
Hs-Nox4	-----GLTGVMVVVFLMVTASTYAIRV-----	-----SNYDIFWYTHNLFFV-----	199
Cf-Nox4	-----GLTGVMVVVFLMVTASTYAIRV-----	-----SNYDIFWYTHNLFFV-----	203
Gg-Nox4	-----GLTGVMVVVFLMCTASTYAIRV-----	-----SNYDIFWYTHNLFFV-----	159
Xt-Nox4	-----GVTGVMVLVFLMCTASTSSIRT-----	-----ANYGIFLHTHNLFFI-----	187

O1-Nox4	-----GVSGVLLVLILLMFISSSH CIRV-----CNYEIFWYTHNLFIV	199
Tr-Nox4	-----GVTGIVLVILFLMLSSSN CVRS-----FNYEIFWYTHNLFIV	197
Ci-Nox4	-----GITGILLVIVLVISAFASRPIRR-----NNHNKFWKTHHIFIV	197
Ag-Nox	-----GFSGCIMLLTLAAMAYLARRSMRD-----RFYNSFFTSHHLFLV	181
Pa-NoxA	-----GATGHVMLLCMLMYTAAHHRIRQ-----QSFETFWYTHHLFIP	182
Mg-NoxA	-----GATGHMMLLCMLMYTAAHHRIRQ-----QSFETFWYTHHLFIP	181
Fg-NoxA	-----GITGHIMLLCMLMFTSAHARIRQ-----QSFETFWYTHHLFIP	185
An-NoxA	-----GVTGHVMLFCMLMYTAAHHRIRQ-----QSFETFWYTHHLFIP	180
Pa-NoxB	-----GWTGYVMLIALMGMVITSVEKTRR-----ANYERFWYTHHMFIV	231
Fg-NoxB	-----GWTGYVMLIALMGMVLTSM EKPRR-----ANFERFWYTHHMFIV	220
Mg-NoxB	-----GWTGYVMLIALMGMVFTSVEKPRR-----ANYERFWYTHHFFIV	235
Dd-NoxA	-----GWTGHVVCIVMVMYTSAVESIRR-----PMFEGFWYTHHLFVV	195
Dd-NoxB	-----GITGHIMLLILIVSSMWRIRR-----PMFEIFWYVHHLFIP	369
At-rbohC	-----GITGLVMVLLMAIAFTLATPWFRRGKLN--YLPGLKKLASFNAFWYTHHLFVI	543
At-rbohG	-----GITGLVMVFLMVAFTLAMPWFRRGKLEKKLPGPLKKLASFNAFWYTHHLFVI	496
At-rbohA	-----GVTGIGMVVLMTIAFTLATTFWRRNKLN--LPGPLKKITGFNAFWYSHHLFVI	534
At-rbohB	-----GWTGVTMVVLMVAVYLAQSWFRNRAN--LPKSLKRLTGFNAFWYSHHLFVI	489
At-rbohD	-----GWTGIVMVVLMIAIAFTLATPWFRRNKLN--LPNFKKLTGFNAFWYTHHLFII	566
At-rbohF	-----GITGILMVLIMIISFTLATRWRFRNLVK--LPKPFDRLTGFNAFWYSHHLFVI	577
At-rbohI	-----GITGIIMVAFMLIAFTLASRRCRRNLTK--LPKPFDKLTGFNAFWYSHHLLLT	565
At-rbohE	-----GITGISMVILTIAFTLASTHFRNRVR--LPAPLDRLTGFNAFWYTHHLLVV	555
At-rbohH	-----SITGVLMIFFMGFSFTLAMHYFRNRIVK--LPKPFNVLAGFNAFWYAHHLLVL	506
At-rbohJ	-----SVTGVLMIIFMGISFTLAMHYFRNRIVK--LPIPFNRLAGFNSFWYAHHLLVI	517
Hs-Nox5	-----SPTGVALLLLLLLMFICSSS CIRR-----SGHFEVFWYTHLSYLL	379
Cf-Nox5	-----SPTGVALLLLLLLMFACSSS CIRRS-----GHFEVFWYTHLSYLP	406
Bt-Nox5	-----SPTGVALLLLLLLMFACSSS CVRRS-----GHFEVFWYTHLSYLP	414
Md-Nox5	-----SLTGIVLQLLILIMLVCS SFCVRRS-----GHFEVFWYTHLSYIS	386
Xt-Nox5	-----SITGILLQLLICLMLFSNTFVRKG-----GYFEVFWYTHLSYIW	396
Tr-Nox5	-----SVTGVLVLFQFIMCLMVLCSSTFVRRS-----GHFEIFWYSHLSYVW	320
Tn-Nox5	-----SLTGVLVQLLIGLMVLCSSTFVRAH-----GHFEVFWYSHLSYVW	198
Gg-Nox5	-----PQTGLALQLLFLAMLAFSSPCVRRG-----GHFELFWYSHLSYVP	369
O1-Nox5	-----SLTGVLVLLLILMVLCSSTFVRR-----SGHFEVFWYSHLSYIW	393
Dr-Nox5	-----SITGVVIQILIGLMVVCSSTFVRR-----SGHFEVFWYSHLSYIW	276
Sp-Nox5A	-----FLTGWVLDIILAIVICSM PFVRR-----SGHFQVVFYFTHMLYVW	387
Sp-Nox5B	-----IITGILIIIVLIIIMTICSLPFIRR-----NGYFKVFWYTHQLCIV	352
Ag-Nox5	-----NPTGVVLVILLIMFICSQPFVRR-----GGSFEVFWYTHLLYVP	438
Am-Nox5	-----NPTGFILVILFLIIMICSM PFVRR-----GGCFEIFYWYSHLLYIP	440
Dm-Nox5	-----NPTGVALLAILVVMVFC S QPFVRR-----KGSFEVFWYTHLLYVP	443
Dd-NoxC	-----GVTGFIMISFLIIMAILSLKIIRK-----SNFELFYSHHLFIG	760
Mg-NoxC	-----GITGLTALGLFYTLALLSMPQVRR-----WNYEVFQLAHLMLFP	403
Fg-NoxC	-----GFTGITALGLFWILCLLSIPQVRR-----WNYEVFQLGHLLMFP	328
Cc-NoxD	-----ITGFLLAIVFGTMLVLRPSVVK-----NNFRLFYAVHIGAT	192
Py-NoxD	-----ITGSMLVALFAILFVTSVRVNRS-----KRYELFWYSHAICAS	187
Xt-Duox1	-----GMTGVLLLAVMALMYVFS CYHFRR-----VSFRCFWLTHHLYVW	1184
Xt-Duox2	-----GLTGVLVLLAVLALMYVFS SHHFRR-----ISFRGFVWTHHLYIL	1236
Gg-Duox	-----GMTGVLLLIILAVMYVFATHHFRR-----VSFQAFWITHHLYVL	1122
Tr-Duox	-----GLTGILLFLTAFMYVFASRYFRR-----ISFRGFWFTHCLYVW	1154
Tn-Duox	ILVLLLLGLTGILLFLTAFMYVFASRYFRR-----ISFRGFWLTHCLYVL	1305
O1-Duox	-----GITGVLLLVLAFMYVFASRYFRH-----ISFRAFWITHYLYIV	1231
Dr-Duox	-----GITGVILLLIFAFMYVFASHYFRR-----ISFRGFWITHHLYVL	1182
Mm-Duox2	-----GMTGVLLLVLAIMYVFASHHFRR-----HSFRGFWLTHHLYVW	1196
Rn-Duox2	-----GMTGVLLLVLAIMYVFASHHFRR-----HSFRGFWLTHHLYVW	1196
Hs-Duox2	-----GMTGVLLLVLAIMYVFASHHFRR-----RSFRGFWLTHHLYIL	1227
Cf-Duox2	-----GMTGVLLLVLAIMYVFASHHFRR-----RSFRGFWLTHHLYIV	979
Hs-Duox1	-----GLTGVLVLLIILAIMYVFASHHFRR-----RSFRGFWLTHHLYIL	1230

Cf-Duox1	-----GLTGVMLLLVLAIMYVFASHHFRR-----	HSFRGFWLTHHLYIL	1231
Rn-Duox1	-----GLTGVLLLLALAIMYVFASHHFRR-----	RSFRGFWLTHHLYIF	1226
Mm-Duox1	-----GLTGVLLLLALAIMYVFASHHFRR-----	RSFRGFWLTHHLYIF	1230
Ci-DuoxA	-----GITGVLLTLIVMYTFASDYSRR-----	RVFQWFVWTHNFGYI	1254
Ci-DuoxC	-----GITGVILTLALIVMYVFASNYARR-----	MIFNWFVWTHKGLYL	1119
Ci-DuoxD	-----GNTGVLLTIIFIVMYVFSLDYPRQ-----	VMFNWFQWIHFFGYI	1197
Sp-Duox	-----GFTGILLVMVCTVIYTFAFQYARR-----	RVFNLFWFTHNM-WI	1350
Dm-Duox	-----GTTGVMLFIIIMCIIFVFAHPTIRK-----	KAYNFFWNMHTL-YI	1150
Ag-Duox	-----GVTGVMLFVVMCIIFAFVFAHPTIRK-----	KAYKFFWNAHSL-YV	1151
Am-Duox	-----GLTGILLFIVMTIIFVFAHPTIRQ-----	KAYKFFWSTHSL-YV	1156
Ce-Duox1	-----GLTGIALVAVMCIIVFALPCFIK-----	RAYHAFRLTHLL-NI	1170
Ce-Duox2	-----GLTGIGLVIVMSIIYFALPKFTR-----	RAYHAFRLTHLL-NI	1176
Ci-DuoxB	-----GLTGVLLLLTISIIYVFAMQYSRR-----	FCFRAFWITHHL-YT	1173

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TM(V)

Hs-Nox1	Y-ILGLGIHGIGGIVRGQTEESMNESSHPRKCAESF-EMWDD-----	252
Cf-Nox1	Y-FIGLGIHGIGGIVRGQTEESLNESHPRCAESF-KQWDD-----	252
Mm-Nox1	Y-IICLGIHGLGGIVRGQTEESLGESHPHNCSSHSF-HEWDD-----	251
Rn-Nox1	Y-IICLGIHGLGGIVRGQTEESMSESHPRNCSYSF-HEWDK-----	251
Gg-Nox1	Y-FIGLVFHGAGLVRGQTEESMKEVHPQSCAEFL-VNKSKE-----	251
Xt-Nox1	F-FIGLVFHGAGRIVRGQTSDSMETNNYEKCHNSF-TQWQN-----	248
Tn-Nox1	F-FAGLVFHGAGRIVRSQ-QTTNPPHNTSYCKDHP-DDWGH-----	249
Tr-Nox1	F-FAGLVFHGAGRIVRSQ-NSE-PAHDATFCKDRT-EDWGK-----	247
Ol-Nox1	F-FVGLVFHGYGRIVRSQ-FNT-DDHNATFCKDRP-DDWGK-----	252
Dr-Nox1	F-FAGLVFHGAGRVVRGQ-VTDPHNSFCEDQP-DNWGK-----	251
Mm-Nox2	F-FIGLAIHGAERIVRGQTAESLEEHLNLDICADKI-EEWG-----	252
Rn-Nox2	F-FIGLAIHGAERIVRGQTSDSLKEHLNLDVCADKI-KEWG-----	252
Hs-Nox2	F-FIGLAIHGAERIVRGQTAESLAVHNIYVCEQKI-SEWG-----	252
Cf-Nox2	F-FIGLAIHGAERIVRGQTAASRLHNYKVCADNI-SQWG-----	252
Gg-Nox2	F-FIGLVFHGAGRIVRGQTAESLAEHIPEVCSKNF-TDWG-----	252
Xt-Nox2	F-FIGLVFHGAGKIVRGQTDKSLKHNSTECEDKF-TEWG-----	252
Tn-Nox2	F-FIGLVHGFGRIVRGQTAASLKTNKPEVCADRF-EEWGR-----	250
Tr-Nox2	F-FIGLVHGFGRIVRGQTPASLKSNDPTVCADRF-EDWGR-----	250
Ol-Nox2	F-FIGLVFHGFGRIVRGQTSRSLSDNDPVCADRF-EDWGK-----	251
Dr-Nox2	F-FIGLVHGIGRIVRGQTDADLQVHDPTICHSKF-EKWGQ-----	250
Hs-Nox3	F-FLSLAIHGTGRIVRGQTDLSLHNIYFCRDRY-AEWQT-----	251
Cf-Nox3	F-FIGLAIHGAGRIVRGQTPESQLLHNVTFCRDHH-AQWQK-----	251
Mm-Nox3	F-FISLAIHGGGRIIRGQTPESLRLHNVTYCRDHY-AEWQA-----	251
Rn-Nox3	L-FISLAIHGGGRIIRGQTPESLRLHNVTFCRDHF-DEWQE-----	251
Gg-Nox3	F-FIGLIIHGTGQLVRGQTPHSLLLHNIYCKEYH-LEWEK-----	250
Ci-Nox2	F-YGFLVVHGISMQVRGQTPQSLTVHDPIRCSTIDPATWSQ-----	265
Sp-Nox2A	Y-FAMLLAHGVGGIIRSQ--TNLDRHDVVFCSENL-DVWGP-----	263
Sp-Nox2B	Y-YAMLMTHTGMGGVVKYQ--TNVDEHDPVECMVDE-ETFDQ-----	238
Mm-Nox4	F-YMLLLHVSGLLKYQTNVDTHPPGCISLNQTSSQNMSIPDYVSEHF-----	247
Rn-Nox4	F-YMLLLHVSGLLKYQTNLDTHPPGCISLNRTPSQNMSIADYVSEHF-----	247
Hs-Nox4	F-YMLLTLHVSGLLKYQTNLDTHPPGCISLNRTPSQNMSIADYVSEHF-----	247
Cf-Nox4	F-YMLLMLHVSGLLKYQANLDTHPPGCININGTRYQNIHLPNRYSEHF-----	251
Gg-Nox4	F-YILLMLHVSGLVLYQTNLEEHPGCFNPNKTLGNMTPKSFEEFPDY-----	210
Xt-Nox4	F-YLLLLHACAGVLKYQSNLEEHPGCLYLNRSAQGEVPGAAADGGFPPGR-----	238
Ol-Nox4	F-YIILMVHMAGGALKFQTNIEAHPGCLRASQS-----	232
Tr-Nox4	F-YIVLVMHMGVGLKYQTNIEAHPGCLTANQSNM-----	232
Ci-Nox4	F-YALIFIHAMDGVIKYQTNVDQHKPGCFILIDQTNNTSNIISMVQPEPEFPNHPSMVKP-----	256
Ag-Nox	F-YGMFVYHPLRLVHGGSTLNDIAIDRFNIIKHQTNVDK-----	218

Pa-NoxA	F-FLGLYHTVGC FVRDTADAI SPFAGDEYWEHCI-----	216
Mg-NoxA	F-FLGLYHTVGC FVRDTVEPHSPFAGDEYWNHCI-----	215
Fg-NoxA	F-FLGLYHTVGC FVRDTPEAFSPFAGDEFWEHCI-----	219
An-NoxA	F-LLGLYTHATGCFVRDSAEPYSPFAGERFWKHCI-----	214
Pa-NoxB	F-FFFWSIHGAF CMIQPDFAFPCISIG---TQAI-----	261
Fg-NoxB	F-FFFWSIHGAF CMIQPDVAPFCTSIG---SSAI-----	250
Mg-NoxB	F-FFFWSIHGAF CMIQPDFAFPCMSFG---TSAI-----	265
Dd-NoxA	F-FGLLVVHGLHSILEP-TSF-----	214
Dd-NoxB	F-YILLCFHGYSKILKDPQS-----	389
At-rbohC	V-YILLVAHGYYLYLTRD-----	560
At-rbohG	V-YILLVLHGYYIYLNKE-----	513
At-rbohA	V-YLLVHGFYVYLIIEP-----	552
At-rbohB	V-YVLLIVHGYFVYLSKE-----	506
At-rbohD	V-YALLIVHGIKLYLTKI-----	583
At-rbohF	V-YILLILHGIFLYFAKP-----	594
At-rbohI	V-YVLLIVHGVSLYLEHK-----	582
At-rbohE	V-YIMLIVHGTFLFFADK-----	572
At-rbohH	A-YILLI IHGYLIIIEKP-----	523
At-rbohJ	A-YALLI IHGYLIIIEKP-----	534
Hs-Nox5	V-WLLIFHG-----	388
Cf-Nox5	M-WILLILHGPN-----	417
Bt-Nox5	M-WLLILHGPN-----	425
Md-Nox5	I-WALLIVHGPN-----	397
Xt-Nox5	I-WILLFLHTPK-----	407
Tr-Nox5	V-WILLMVHCAN-----	331
Tn-Nox5	V-WALLMVHCAN-----	209
Gg-Nox5	V-WALLFHAPN-----	380
O1-Nox5	V-LILLIVHC-----	402
Dr-Nox5	V-SALLVHC-----	285
Sp-Nox5A	F-WGLLL IHG-----	396
Sp-Nox5B	F-WCLII IHS-----	361
Ag-Nox5	F-WILVLFHG-----	447
Am-Nox5	Y-WILVILHA-----	449
Dm-Nox5	F-WILCLFHG-----	452
Dd-NoxC	F-YVLLILHGTMGWIRPPTF-----	779
Mg-NoxC	I-IGLLAAHGTAQLLQYAMFGY-----	424
Fg-NoxC	I-IGLMAHGTAALLQWPMFGY-----	349
Cc-NoxD	LFFGLLI IHGMFRQVPYTYK-----	212
Py-NoxD	LGFVLLMIHGLHYGVYWTYR-----	207
Xt-Duox1	F-YILTI IHGSFALIQP-----	1201
Xt-Duox2	L-YILTILHGSFGLLQPP-----	1253
Gg-Duox	L-YVLVI IHGSYALIQP-----	1139
Tr-Duox	V-YALTVIHGSYALIQEP-----	1171
Tn-Duox	V-YALTVVHGSYAFIQEP-----	1322
O1-Duox	V-YILTVIHGSFALLQEP-----	1248
Dr-Duox	I-YVLTVVHGSYGLLQPP-----	1199
Mm-Duox2	L-YVLII IHGSYALIQLP-----	1213
Rn-Duox2	L-YALII IHGSYALIQLP-----	1213
Hs-Duox2	L-YALLI IHGSYALIQLP-----	1244
Cf-Duox2	L-YVLLI IHGSFGLIQLP-----	996
Hs-Duox1	L-YVLLI IHGSFALIQLP-----	1247
Cf-Duox1	L-YVLLI IHGSFGLIQLP-----	1248
Rn-Duox1	L-YILLI IHGSFALIQMP-----	1243
Mm-Duox1	L-YILLI IHGSFALIQMP-----	1247
Ci-DuoxA	FLFFFMIHSGSGLVQDP-----	1272

Ci-DuoxC	SLYFFSFVHGSGMLISSP-----	1137
Ci-DuoxD	SVYFFTVLHGSGMLIQIP-----	1215
Sp-Duox	IYFILMFLHGSGRLVQPP-----	1368
Dm-Duox	GLYLLSLIHGLARLTGPP-----	1168
Ag-Duox	VLYALCLVHGLARLTGAP-----	1169
Am-Duox	VLYALCLIHGLARLTGSP-----	1174
Ci-DuoxB	VLYILTLHGSLGIVQAP-----	1191
Ce-Duox1	AFYALTLHGLPKLLDSP-----	1188
Ce-Duox2	GFYALTLHGLPSLFGSP-----	1194

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Hs-Nox1	-----	
Cf-Nox1	-----	
Mm-Nox1	-----	
Rn-Nox1	-----	
Gg-Nox1	-----	
Xt-Nox1	-----	
Tn-Nox1	-----	
Tr-Nox1	-----	
Ol-Nox1	-----	
Dr-Nox1	-----	
Mm-Nox2	-----	
Rn-Nox2	-----	
Hs-Nox2	-----	
Cf-Nox2	-----	
Gg-Nox2	-----	
Xt-Nox2	-----	
Tn-Nox2	-----	
Tr-Nox2	-----	
Ol-Nox2	-----	
Dr-Nox2	-----	
Hs-Nox3	-----	
Cf-Nox3	-----	
Mm-Nox3	-----	
Rn-Nox3	-----	
Gg-Nox3	-----	
Ci-Nox2	-----	
Sp-Nox2A	-----	
Sp-Nox2B	-----	
Mm-Nox4	-----HGSLPRGFSKLEDR-YQKTLVKI-----	269
Rn-Nox4	-----HGSLPGGFSKLEDH-YQKTLVKI-----	269
Hs-Nox4	-----HEPFPEGFSKPAEF-TQHKFVKI-----	269
Cf-Nox4	-----HESFPGGLSKPDEL-TQNRSVNI-----	273
Gg-Nox4	-----TTEPFPELTFPQPL-VQSNFMRI-----	233
Xt-Nox4	-----AARALMGSFFSHEDMSVHNNSEKI-----	262
Ol-Nox4	-----LRQQQAEDLD-QKQR-----	247
Tr-Nox4	-----DPQAKEMEKADNEERR-----	248
Ci-Nox4	KMVAVPEPPHREPFPPNMKLASKMPSKTDKFMNNTAPQPHHVIMPEPEPMPHKGAGHAPN	316
Ag-Nox	-----HKIMCDLVNDVTLHSNEDLLVL-----	240
Pa-NoxA	-----	
Mg-NoxA	-----	
Fg-NoxA	-----	
An-NoxA	-----	

Pa-NoxB	-----
Fg-NoxB	-----
Mg-NoxB	-----
Dd-NoxA	-----
Dd-NoxB	-----
At-rbohC	-----
At-rbohG	-----
At-rbohA	-----
At-rbohB	-----
At-rbohD	-----
At-rbohF	-----
At-rbohI	-----
At-rbohE	-----
At-rbohH	-----
At-rbohJ	-----
Hs-Nox5	-----
Cf-Nox5	-----
Bt-Nox5	-----
Md-Nox5	-----
Xt-Nox5	-----
Tr-Nox5	-----
Tn-Nox5	-----
Gg-Nox5	-----
Ol-Nox5	-----
Dr-Nox5	-----
Sp-Nox5A	-----
Sp-Nox5B	-----
Ag-Nox5	-----
Am-Nox5	-----
Dm-Nox5	-----
Dd-NoxC	-----
Mg-NoxC	-----
Fg-NoxC	-----
Cc-NoxD	-----
Py-NoxD	-----
Xt-Duox1	-----
Xt-Duox2	-----
Gg-Duox	-----
Tr-Duox	-----
Tn-Duox	-----
Ol-Duox	-----
Dr-Duox	-----
Mm-Duox2	-----
Rn-Duox2	-----
Hs-Duox2	-----
Cf-Duox2	-----
Hs-Duox1	-----
Cf-Duox1	-----
Rn-Duox1	-----
Mm-Duox1	-----
Ci-DuoxA	-----
Ci-DuoxC	-----
Ci-DuoxD	-----
Sp-Duox	-----
Dm-Duox	-----

Ag-Duox -----
 Am-Duox -----
 Ci-DuoxB -----
 Ce-Duox1 -----
 Ce-Duox2 -----

TM(VI)

Hs-Nox1 -----RDSHCRRPKFEGHPPESWKWI-LA-PVILYICERILRFYRSQQKVVI 297
 Cf-Nox1 -----HDSHCKHPRFEGPLAESWKWI-LA-PGVLYILERILRFYRSQQKVVI 297
 Mm-Nox1 -----HKGSCRHPHFAGHPPESWKWI-LA-PIAFYIFERILRFYRSQQKVVI 296
 Rn-Nox1 -----YERSCRSHPFVGGPPESWKWI-LA-PIAFYIFERILRFYRSRQKVVI 296
 Gg-Nox1 -----CRHQCKEPEFGSIPAEGMGVGLQ-ESRLLHTPGCCXSSHTGTEIPA 298
 Xt-Nox1 -----SKSSNRDDDDHHNDKCTVPAFQNE-PGVRYKMKMYFETROKRKTHAI 295
 Tn-Nox1 -----IPECP IPQFAGGFPQTMMWV-IA-PMFLYVCERLIRFVRYMQTVRY 293
 Tr-Nox1 -----IPECP IPQFSGGFPQTMMWV-IG-PMVLYLCERLIRFIRYMQTVRY 291
 Ol-Nox1 -----IPECP IPQFKGGEPMTWKWV-IG-PMIYVCERLIRFIRYMQAVQY 296
 Dr-Nox1 -----IPECP IPQFAGGSPQTMMWV-IG-PMIYICERLIRFIRYMQPVTY 295
 Mm-Nox2 -----KIKECPVPKFAGNPPMTWKWI-VG-PMFLYLCERLIRFVRSQQKVVI 297
 Rn-Nox2 -----KIKECPVPKFAGNPPMTWKWI-VG-PMFLYLCERLIRFVRSQQKVVI 297
 Hs-Nox2 -----KIKECP IPQFAGNPPMTWKWI-VG-PMFLYLCERLIRFVRSQQKVVI 297
 Cf-Nox2 -----KIPDCP IPQFSGNPPMTWKWI-VG-PMFLYLCERLIRFVRSQQKVVI 297
 Gg-Nox2 -----KKGACVPQFAGNPPMTWKWV-VG-PMFLYFCERLIRFVRSQQKVVI 297
 Xt-Nox2 -----NITSCP IPQFAGNEPMTWKWV-VA-PMVLYVFERLIRFVRSQQKVVI 297
 Tn-Nox2 -----NGSDCAVPEFAGNPPMTWKWV-VG-PMIYVCERLIRFVRSQQKVVI 295
 Tr-Nox2 -----NGSNCAVPEFAGNPPMTWKWV-VG-PMIYVCERLIRFVRSQQKVVI 295
 Ol-Nox2 -----NESGCAVPAFAGNPPMTWKWV-VG-PMFLYVCERLIRFVRSQQKVVI 296
 Dr-Nox2 -----NVTDCPVP IFAGNPPKTWKWV-VG-PMFLYVCERLIRFVRSQQKVVI 295
 Hs-Nox3 -----VAQCPVPQFSGKEPSAWKWI-LG-PVVLYACERLIRFVRSQQKVVI 295
 Cf-Nox3 -----MAQCPMPQFSGKEPSAWKWI-LG-PVVLYACERLIRFVRSQQKVVI 295
 Mm-Nox3 -----AALCPVPQFSGKEPSAWKWA-LG-PVVLYACERLIRFVRSQQKVVI 295
 Rn-Nox3 -----AASCPVPQFSGKEPSAWKWT-LG-PVVLYACERLIRFVRSQQKVVI 295
 Gg-Nox3 -----ATQCPVPQFSGNKPVAWKWV-VS-PVVLYICERLIRFVRSQQKVVI 294
 Ci-Nox2 -----NNCPTVPFAGSPPMTWKWV-IA-PMVLYVICERLIRLVRFNQQVEV 308
 Sp-Nox2A -----TSAQCEDPVFKDGSAAASYKWW-SG-PLFIYLLERTIRFVRSQQKVVI 308
 Sp-Nox2B -----CVID-NPPLFAGTPGASWKWC-VT-PLCVYFLERILRIMRTWPDVTI 282
 Mm-Nox4 -----CLEEP-KFQAHPQTWIIWISGP--LCLYCAERLYRIRSNKPVTI 311
 Rn-Nox4 -----CLEEP-KFQAHPQTWIIWISGP--LCLYCAERLYRIRSNKPVTI 311
 Hs-Nox4 -----CMEEP-RFQANFPQTLWISGP--LCLYCAERLYRIRSNKPVTI 311
 Cf-Nox4 -----CMEEP-RFQANFPQLPMWELTPCTLCLYCDT-CFTSVKLNAPKVI 316
 Gg-Nox4 -----CSKEP-KFQSHFPETWFIWISGP--LCLYCVERLYRIRSNKPVTI 275
 Xt-Nox4 -----CTKGP-TFRPHFPETWFIWISGP--LCLYCAERLYRIRSNKPVTI 304
 Ol-Nox4 -----CKEDA-HFQPHYPQTLWVWISGP--LCLYCVERLYRIRSNKPVTI 289
 Tr-Nox4 -----CTEEA-HFQGHYPQTLWVWISGP--LCLYCAERFFRYIRSCDPVTI 290
 Ci-Nox4 -----TTRIFVHGSWVEVMECVQPPPKFSSCRQEAWLWLCAP--LIYVIERIGRHRSSHDVTT 374
 Ag-Nox -----CEEPP-QFSAGTKRAWIPLVG--LAIYLADISFRYLTSHSERYR 282
 Pa-NoxA -----GYLGWRWELWT-GG-FYLIERLYREIRAIRETKEI 248
 Mg-NoxA -----GYLGWRWELWT-GG-FYLLERLYREIRARRETKEI 247
 Fg-NoxA -----GYLGWRWELWT-GG-AYLLERLWREVRARRSTKI 251
 An-NoxA -----GYQGWRWELVA-GF-FYLCERLWREIRALRETEI 246
 Pa-NoxB -----GVF-WQYWMYG-GF-AYLAERVAREIRGRHKTYI 292
 Fg-NoxB -----GVF-WQFWMYS-GF-CYLAERIAREVGRHRTFI 281
 Mg-NoxB -----GVF-WQFWMYG-GF-VYMAERIAREVGRHRTFI 296
 Dd-NoxA -----WKWVIGP-CA-LYIVERLIRLLRSKKTML 242

Dd-NoxB	-----WMWIIAP-FI-LYSIERLIRIARSKKRIVL	417
At-rbohC	-----WHNKTTWMYLVVP--VVLACERLIRAFRSSI---K	591
At-rbohG	-----WYKKTWMYLAVP--VALYAYERLIRAFRSSI---R	544
At-rbohA	-----WYKKTWMYLMVP--VVLVLCERLIRAFRSSV---E	583
At-rbohB	-----WYHKTTWMYLAVP--VLLYAFERLIRAFRPGA---K	537
At-rbohD	-----WYQKTWMYLAVP--ILLYASERLLRAFSSV---K	614
At-rbohF	-----WYVRTWMYLAVP--VLLYGGERTLRYFRSGS---Y	625
At-rbohI	-----WYRKTVWMYLAVP--VLLYVGERIFRFRSRL---Y	613
At-rbohE	-----WYQKTWMYISVP--LVLYVAERSLRACRSKH---Y	603
At-rbohH	-----WYQKTWMYLAVP--MLFYASERLFSRLQEHV---H	555
At-rbohJ	-----WYQKTWMYVAIP--MVLASERLFSR-VQEHV---H	565
Hs-Nox5	-----PNFWKWLLVP--GILFFLEKAIG---LAVSRMA	416
Cf-Nox5	-----FWKWLLVP--GTLFFLEKIIGLAVSRMAALC	446
Bt-Nox5	-----FWKWLLVP--GTLFFLEKTIISLAASRMAALH	454
Md-Nox5	-----FWKWLLVP--GLLFFLEKVVGLVLSRMAALS	426
Xt-Nox5	-----FWKWFLVP--GLLFLLEKLFGAAVSRTGDVY	436
Tr-Nox5	-----FWKWFVAP--GFVFLLEKIIGIAVSRMGGLY	360
Tn-Nox5	-----FWKWFVGP--GFVFLLEKIVGIAVSRMGGLH	238
Gg-Nox5	-----FWKWFLVP--GGLFVLEKAVGTAVSRAVGLR	409
O1-Nox5	-----ANFWKWFVVP--GLLFLLEKIVG---IAVSRMG	430
Dr-Nox5	-----ANFWKWFVVP--GVAFLIEKLVG---IAVSRMG	313
Sp-Nox5A	-----PRFWYWFVVP--GIIFIVEKLSQTKCVKQARYG	427
Sp-Nox5B	-----KYFWIWF IAP--GI IYLAERLVRLQFFRRARFG	392
Ag-Nox5	-----PNFWKWF IVP--GLIYLVERTIR-LVWMRTEHG	477
Am-Nox5	-----PNFWKWF IGP--GLIYLLERIRR-IAWSRSQLG	479
Dm-Nox5	-----PNFWKWFLLP--GLVYIVERALR-FIWMRGEHG	482
Dd-NoxC	-----WKWF IVP--GF-FYTVDRSFRFLKRRTHRVEV	807
Mg-NoxC	-----WLAVP--TILVLTERLVRVGTGFHRIPA	450
Fg-NoxC	-----FLAFP--TLLVLVERTVRVGLGFHRIKA	375
Cc-NoxD	-----WVIPP--LILYAI DRFLRR---RKVSA	234
Py-NoxD	-----WAAGP--MAVYIIDRLMRR---VEQKE	229
Xt-Duox1	-----RFHIFFLVP--ALIYSADKLISLSRKKIQINV	1231
Xt-Duox2	-----KFHVFLMAP--ALIFIRDSLISLRKKTEINV	1283
Gg-Duox	-----RFHIYF IIP--ALIYGADKLISLSRKKVEISV	1169
Tr-Duox	-----RFHIYL IIP--ALLFLLDKLISLSRKKLEIPV	1201
Tn-Duox	-----RFHIYL IIP--ALLFLLDKLISLSRKKLEIPV	1352
O1-Duox	-----RFYIYL IIP--SLLFLLDKLISLSRKKVEIPV	1278
Dr-Duox	-----RFHIYL IIP--GLLFLLDKLISLSRKKVEIPV	1229
Mm-Duox2	-----SFHIYFLVP--AI IYGGDKLVLSRKKVEISV	1243
Rn-Duox2	-----SFHIYFLVP--AI IYVGDKLVLSRKKVEISV	1243
Hs-Duox2	-----TFHIYFLVP--AI IYGGDKLVLSRKKVEISV	1274
Cf-Duox2	-----RFYIYFLVP--ALIYVGDKLVLSRKKVEISV	1026
Hs-Duox1	-----RFHIFFLVP--AI IYGGDKLVLSRKKVEISV	1277
Cf-Duox1	-----RFHIFFLVP--ALIYVGDKLVLSRKKVEISV	1278
Rn-Duox1	-----RFHIFFLVP--AI IYVGDKLVLSRKKVEISV	1273
Mm-Duox1	-----RFHIFFLVP--AI IYVGDKLVLSRKKVEISV	1277
Ci-DuoxA	-----FFYYFFLGP--AIIYTLDKLYSVSRKCEISV	1302
Ci-DuoxC	-----QFYYFFLVP--GILFTLTKVYYSRKKAYISV	1167
Ci-DuoxD	-----SFYYFFLVP--AIIYTFDKLYSVYRKKFQLPV	1245
Sp-Duox	-----FTHYFALGP--IVLFTLTKLVSI SRKKA EIAV	1398
Dm-Duox	-----RFWMFFLGP--GIVYTLDKIVSLRRTKYMALDV	1198
Ag-Duox	-----RFWLF IGP--GIVYTLDKIVSLRRTKYMALDV	1199
Am-Duox	-----RFWIFFVGP--AI IYALDKVVSLRRTKYMALDI	1204
Ci-DuoxB	-----VFHFYLVVP--VVIFLIDKMITISRKVKQITV	1221
Ce-Duox1	-----KFGYVVGP--IVLFVIDRIIGLMQYKKEI	1218

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Hs-Nox1	T--KVMHPS-----KVLELQMNKR----GFSMEVG 322
Cf-Nox1	T--KVMHPS-----KVLELQMIKR----GFSMEVG 322
Mm-Nox1	T--KVMHPS-----NVLELQMRKR----GFSMEVG 321
Rn-Nox1	T--KVMHPC-----KVLELQMRKR----GFTMGIG 321
Gg-Nox1	S--QVVMHPA-----KVLELQMCKK----GFRMEVG 323
Xt-Nox1	KPNHTTMGHP-----KVLEIQMCKR----GFKMEVG 323
Tn-Nox1	R--RIVMRPS-----KVLELQLVKS----GFKMEVG 318
Tr-Nox1	R--KIVMRPS-----KVLELQLMKR----GFKMEVG 316
O1-Nox1	R--KIVIHPS-----KVLELQLRKK----GFKMEVG 321
Dr-Nox1	R--KIVIRPS-----KVLELQLVKP----GFSMDVG 320
Mm-Nox2	T--KVVTHPF-----KTIELQMKKK----GFKMEVG 322
Rn-Nox2	T--KVVTHPF-----KTIELQMKKK----GFKMEVG 322
Hs-Nox2	T--KVVTHPF-----KTIELQMKKK----GFKMEVG 322
Cf-Nox2	T--KVVTHPF-----KTIELQMKKK----GFKMEVG 322
Gg-Nox2	T--KVVTHPF-----KTIELQMKKK----GFKMEVG 322
Xt-Nox2	T--KVVTHPF-----KTIELQMKKK----GFKMEVG 322
Tn-Nox2	T--KVMHPS-----KTLELRMKRK----GFHMEVG 320
Tr-Nox2	T--KVMHPS-----KTLELRMKRK----GFRMEVG 320
O1-Nox2	T--KVMHPS-----KTLELRMKKK----GFHMEVG 321
Dr-Nox2	T--KVVTHPS-----KTLELRMKKK----GFKMEVG 320
Hs-Nox3	T--KVVSHPS-----GVLELHMCKR----NFKMAPG 320
Cf-Nox3	T--KVVSHPS-----AVLELHMCKR----DFKMAPG 320
Mm-Nox3	T--KVVSHPS-----AVLELHMCKR----DFKMAPG 320
Rn-Nox3	T--KVVSHPS-----AVLELHMCKR----DFKMAPG 320
Gg-Nox3	T--KVVTHSS-----GVLELHMCKH----GFKMEAG 319
Ci-Nox2	L--KVIKHPS-----RVLEIQMRKN----GFFAEVG 333
Sp-Nox2A	T--KVVKHQS-----KVLELQMKKK----GFKMEAG 333
Sp-Nox2B	V--QVQHQ-----KVLELRMKCK----GFKMLPG 307
Mm-Nox4	IS--VINHPS-----DVMELRMIKE----NFKARPG 336
Rn-Nox4	IS--VINHPS-----DVMELRMIKE----NFKARPG 336
Hs-Nox4	IS--VMHPS-----DVMEIRMVKE----NFKARPG 336
Cf-Nox4	VSN--MINHPS-----DVMEIRMIKE----NFKARPG 342
Gg-Nox4	TS--VISHPS-----NVLEVRMIKD----DFRARPG 300
Xt-Nox4	VA--VITHPC-----DVVEIRMVKE----KFSARPG 329
O1-Nox4	VT--VIRHPC-----DVVELRMLKK----NFRARPG 314
Tr-Nox4	VT--VIRHPC-----NVLELQMLKN----KFAARPG 315
Ci-Nox4	IVK--FIEHPC-----DVLELRMLYRN----GFSAPKPG 400
Ag-Nox	VTT--VQTYAM-----AGHAIHLRLQFCRKAMVKILPG 313
Pa-NoxA	T--RVVKHPY-----DVVEIQFNKP----SFKYKAG 273
Mg-NoxA	T--RVVRHPYGEFFFLFFLLFGPSMVGFSVLIRDSADVVEIQFNKP----SFKYKAG 299
Fg-NoxA	T--RVVRHPY-----DVVEIQFNKP----SFKYKAG 276
An-NoxA	V--KVVHPY-----DAMEIQFRKP----GFKYKPG 271
Pa-NoxB	S--KVIQHPS-----NVCEIQIKKE----HTKTRAG 317
Fg-NoxB	S--KVIQHPS-----NVCEIQMKKE----HTKTRAG 306
Mg-NoxB	S--KVIQHPS-----NVCEIQIKKE----HTKTRAG 321
Dd-NoxA	I--QARIHPS-----RVIEVRMKT-----FKYKPG 267
Dd-NoxB	E--KAIMHPS-----KVLELRMKRDN----DNFNFKPG 444
At-rbohC	AVTIRKVAVYPG-----NVLAIHLSRPQ----NFKYKSG 621
At-rbohG	TVKVLKMAAYPG-----KVLTLQMSKPT----NFKYMSG 574
At-rbohA	AVSVLKVAVLPG-----NVLSLHLSRPS----NFRYKSG 613

At-rbohB	AVKVLKVAVYPG-----NVLSLYMSKPK---GFKYTSG	567
At-rbohD	PVKMIKVAVYPG-----NVLSLHMTKPQ---GFKYKSG	644
At-rbohF	SVRLKVAIYPG-----NVLTLQMSKPT---QFRYKSG	655
At-rbohI	TVEICKVVIYPG-----NVVVL RMSKPT---SFDYKSG	643
At-rbohE	SVKILKVSMLPG-----EVL SLIMSKPP---GFKYKSG	633
At-rbohH	RVNVIKAIVYSG-----NVLALYVTKPP---GFKYKSG	585
At-rbohJ	RVHIKAIVYSG-----NVLALYMTKPQ---GFKYKSG	595
Hs-Nox5	AVCIMEVNLLPS-----KVTHLLIKRPP---FFHYRPG	446
Cf-Nox5	IVEVNLLPSKV-----THLLIKRPP---LFHYRPG	473
Bt-Nox5	IVEVNLLPSKV-----THLLIKRPP---LFHYRPG	481
Md-Nox5	IVEVNLLSSKV-----THLVISRPP---FFRYKPG	453
Xt-Nox5	ITEVNLLASKV-----THLVIKRPP---SFQFKPG	463
Tr-Nox5	IVEVNLLPSKV-----THLVIKRPQ---FFHFKPG	387
Tn-Nox5	IVEVNLLPSKVRWTHGWPVASHVVP SAMAGRCVCRP-QVTHLVVRRPQ---FFHFKPE	293
Gg-Nox5	IVEVHLLPSQV-----THLVIQRPR---SFRFEPG	436
O1-Nox5	GLYIVEVNLLPS-----KVTHLVIKRPQ---FFHFKPG	460
Dr-Nox5	GLYIVEVNLLPS-----KVTHLVIKRPP---FFQFKPG	343
Sp-Nox5A	KTYVQEVNLLPS-----GVTHLALTRPN---RFHYKAG	457
Sp-Nox5B	KVYIQKGYVLP A-----NVVQLVIQRPA---KFKFHAG	422
Ag-Nox5	KTYISSG LLLPS-----KVTHLVIKRPL---HFCFRPG	507
Am-Nox5	KTYISSG LLLPS-----KVTHLVIKRPP---HFV FHPG	509
Dm-Nox5	KTYISSG LLLPS-----KVVHLV IKRPH---HFNFRPG	512
Dd-NoxC	L---DYCLKNE-----RVINLTF SKPP---SFDYKPG	833
Mg-NoxC	SLKVLDDETVELR-----ATIPSERI-----WKYQAG	477
Fg-NoxC	TMKVLDKETVEVT-----AIIPSERL-----WKYKAG	402
Cc-NoxD	VEFLSAENAVLKDG-----DILELRVPKA-----FSYQAG	265
Py-NoxD	VRMEVSRDVGAIKGN-----SMLCLRLPRS-----FTYEPG	260
Xt-Duox1	LDIQR LPS-----DVHLEFQRPN---DFDYKSG	1257
Xt-Duox2	MKADLLPS-----DVTCLRFQRPA---DFDYKSG	1309
Gg-Duox	VKAELLPS-----GVTHLRFQR PQ---DFDYKSG	1195
Tr-Duox	VRAELLPS-----GVTHLEFKRPQ---GFVYRSG	1227
Tn-Duox	VRAELLPS-----GVTHLEIKRPQ---GFVYRSG	1378
O1-Duox	VRAELLPS-----GVTHLEFKRPS---GFVYRSG	1304
Dr-Duox	LKAELL S-----DVTMLEFKRPQ---GFVYRSG	1255
Mm-Duox2	VKAELLPSG-----VTYLQFQRPK---TFEYKSG	1269
Rn-Duox2	VKAELLPSG-----VTYLQFQRPK---TFEYKSG	1269
Hs-Duox2	VKAELLPSG-----VTYLQFQR PQ---GFEYKSG	1300
Cf-Duox2	VKAELLPSG-----VTHLQFQR PQ---GFEYKSG	1052
Hs-Duox1	VKAELLPSG-----VTHLRFQR PQ---GFEYKSG	1303
Cf-Duox1	VKAELLPSG-----VTHLQFQR PQ---GFEYKSG	1304
Rn-Duox1	VKAELLPSG-----VTHLRFQR PQ---GFEYKSG	1299
Mm-Duox1	VKAELLPSG-----VTHLRFQR PQ---GFEYKSG	1303
Ci-DuoxA	VNAELLPS-----EVTHLEFKRPV---NFNYKAG	1328
Ci-DuoxC	VRAELFPS-----DVTHLEFKRPK---NFDYKAG	1193
Ci-DuoxD	IKAEILPS-----DVVYLEFVRPS---DFYKAG	1271
Sp-Duox	TRAELLPS-----DVTMLEFKRPQ---GFEYKSG	1424
Dm-Duox	IDTDLLPS-----DVIKIKFYRPP---NLKYLSG	1224
Ag-Duox	IETDLLPS-----DVIKIKFYRPP---NLKYLSG	1225
Am-Duox	IETELLPS-----DVIKIKFYRPP---NLKYLSG	1230
Ci-DuoxB	IKAEALPS-----GVLNLVFKRPV---AFDYQSG	1247
Ce-Duox1	VNAEILPS-----DIIYIEYRRPR---EFKYKSG	1244
Ce-Duox2	AHAEILPS-----DIIYIEYRRPR---EFYKSG	1250

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	<u>FAD1</u>	<u>FAD2</u>	
Hs-Nox1	QYIFVNCPSISL--LEWHPFTLTSAP---	EEDF-FSIHIRAA-GDWTE-----	368
Cf-Nox1	QYIFVNCPSVSY--LEWHPFTLTSAP---	EEDF-FSVHIRAV-GDWTE-----	363
Mm-Nox1	QYIFVNCPSISF--LEWHPFTLTSAP---	EEEF-FSVHIRAA-GDWTR-----	362
Rn-Nox1	QYIFVNCPSISF--LEWHPFTLTSAP---	EEEF-FSIHIRAA-GDWTE-----	362
Gg-Nox1	QYIFVNCPAVSL--LEWHPFTLTSAP---	EEDF-FSIHIRAA-GDWTE-----	364
Xt-Nox1	QYIFVNCPSVSA--LEWHPFTLTSAP---	EEDC-FSVHIRSA-GDWTD-----	364
Tn-Nox1	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-FSVHIRSA-GDWTD-----	359
Tr-Nox1	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-FSVHIRSA-GDWTD-----	357
O1-Nox1	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-FSVHIRSA-GDWTD-----	362
Dr-Nox1	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-FSVHIRSV-GDWTE-----	361
Mm-Nox2	QYIFVKCPKVSQ--LEWHPFTLTSAP---	EEDF-FSIHIRIV-GDWTE-----	363
Rn-Nox2	QYIFVKCPKVSQ--LEWHPFTLTSAP---	EEDF-FSIHIRIV-GDWTE-----	363
Hs-Nox2	QYIFVKCPKVSQ--LEWHPFTLTSAP---	EEDF-FSIHIRIV-GDWTE-----	363
Cf-Nox2	QYIFVKCPKVSQ--LEWHPFTLTSAP---	EEDF-FSIHIRIV-GDWTE-----	363
Gg-Nox2	QYIFVKCPKVSQ--LEWHPFTLTSAP---	EEDF-FSIHIRIV-GDWTE-----	363
Xt-Nox2	QYIFVQCPAVSK--LEWHPFTLTSAP---	EEDF-FSIHIRIV-GDWTE-----	363
Tn-Nox2	QYVFIQCPVSR--LEWHPFTLTSAP---	EEDY-FSAHIRIV-GDWTD-----	361
Tr-Nox2	QYVFIQCPVSR--LEWHPFTLTSAP---	EEDY-FSAHIRIV-GDWTD-----	361
O1-Nox2	QYVFIQCPVSR--LEWHPFTLTSAP---	EEDY-FSAHIRIV-GDWTD-----	362
Dr-Nox2	QYIFMMCPVSR--LEWHPFTLTSAP---	EEDH-FSVHIRIV-GDWTD-----	361
Hs-Nox3	QYILVQCPAISP--LEWHPFTLTSAP---	QEDF-FSVHIRAA-GDWTA-----	361
Cf-Nox3	QYILVQCPAISP--LEWHPFTLTSAP---	QEDF-FSLHIRVA-GDWTE-----	361
Mm-Nox3	QYIFVQCPVSP--LEWHPFTLTSAP---	QEDF-FSVHIRAS-GDWTE-----	361
Rn-Nox3	QYIFVQCPVSP--LEWHPFTLTSAP---	QEDF-FSVHIRAS-GDWTE-----	361
Gg-Nox3	QYIFVQCPVSP--LEWHPFTLTSAP---	QEDF-FSVHIRAS-GDWTE-----	361
Ci-Nox3	QYIFVQCPVSP--LEWHPFTLTSAP---	QEDF-FSVHIRVA-GDWTA-----	360
Sp-Nox2A	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDY-FSIHVRIV-GDWTT-----	364
Sp-Nox2B	QYIFLKCPVSP--LEWHPFTLTSAP---	EEDH-FSVHIRVV-GDWTR-----	364
Mm-Nox4	QYIILHCPVSA--LENHPFTLTMCP--	TETKAT-FGVHFKVV-GDWTE-----	379
Rn-Nox4	QYIILHCPVSA--LENHPFTLTMCP--	TETKAT-FGVHFKVV-GDWTE-----	379
Hs-Nox4	QYIILHCPVSA--LENHPFTLTMCP--	TETKAT-FGVHFKVV-GDWTE-----	379
Cf-Nox4	QYIILHCPVSA--LENHPFTLTMCP--	TETKAT-FGVHFKVV-GDWTE-----	385
Gg-Nox4	QYIILHCPVSA--LENHPFTLTMCP--	TETKAT-FGVHFKVV-GDWTE-----	344
Xt-Nox4	QYITLLCPVSA--LETHPFTLTMCP--	TESKAT-FAIHKVV-GDWTE-----	372
O1-Nox4	QYILLNCPVSP--FENHPFTLTACP--	TENKQT-FGIHLRIV-GDWTE-----	357
Tr-Nox4	QYILLNCPVSP--FENHPFTLTACP--	TENKQT-FGIHLRIV-GDWTE-----	358
Ci-Nox4	QYILLNCPVSP--FENHPFTLTACP--	TENKQT-FGIHLRIV-GDWTE-----	443
Ag-Nox	QYVLLQCPAISP--LEWHPFTLTSAP---	IEGRND-ITLTIKVR-GDWTE-----	356
Pa-NoxA	QWLFLQVPSVSK--YQWHPFTLTSAP---	YDPY-VSVHVRQV-GDFTR-----	314
Mg-NoxA	QWLFLQVPSVSK--YQWHPFTLTSAP---	YDPY-VSVHVRQV-GDFTR-----	340
Fg-NoxA	QWLFLQVPSVSK--YQWHPFTLTSAP---	YDPY-VSVHVRQV-GDFTR-----	317
An-NoxA	QWLFIQVPEVSN--TQWHPFTLTSAP---	FDDY-VSIHVRQV-GDFTR-----	312
Pa-NoxB	QYIFVQCPVSP--LEWHPFTLTSAP---	EEDY-LSVHVRQV-GDFTR-----	358
Fg-NoxB	QYIFVQCPVSP--LEWHPFTLTSAP---	EEDY-LSVHVRQV-GDFTR-----	347
Mg-NoxB	QYIFVQCPVSP--LEWHPFTLTSAP---	EEDY-LSVHVRQV-GDFTR-----	362
Dd-NoxA	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	308
Dd-NoxB	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	485
At-rbohC	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	662
At-rbohG	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	615
At-rbohA	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	654
At-rbohB	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	608
At-rbohD	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	685
At-rbohF	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	696
At-rbohI	QYVFLNCPAISQ--LEWHPFTLTSAP---	EEDF-VSCHINVV-GNWTG-----	684

At-rbohE	QYIFLQCPTISR--FEWHPFSITSAP---GDDQ-LSVHIRTL-GDWTE-----	674
At-rbohH	MYMFVKCPDLSK--FEWHPFSITSAP---GDDY-LSVHIRAL-GDWTT-----	626
At-rbohJ	MYMFVKCPDISK--FEWHPFSITSAP---GDEY-LSVHIRAL-GDWTS-----	636
Hs-Nox5	DYLYLNIPTIAR--YEWHPFTISSAPE--QKDT-IWLHIRSQ-GQWTN-----	488
Cf-Nox5	DYLYLNIPTIAR--YEWHPFTISSAP---EQKDTIWLHIRSE-GQWTN-----	515
Bt-Nox5	DYLYLNIPSIAR--YEWHPFTISSAP---EQKDTIWLHIRSQ-GQWTN-----	523
Md-Nox5	DYIYLNIPAIK--YEWHPFTISSAP---EQEDTIWLHIRSQ-GQWTN-----	495
Xt-Nox5	DYIYLNIPVIK--YEWHPFTISSAP---EQADTIWLHIRSL-GQWTN-----	505
Tr-Nox5	DYVYINIPKIAK--YEWHPFTISSAP---EQSDCLWLHIRSM-GQWTNRLYEYFRQLDRQ	441
Tn-Nox5	RYVYINIPKIAK--YEWHPFTISSAP---EQSGTCRRRARKPPGLTGTNAPVDPLRFLPR	348
Gg-Nox5	DYIYLNIPAIK--YEWHPFSISSAP---EQQDTIWLHIRSL-GQWTT-----	478
Ol-Nox5	DYIYINIPVIK--YEWHPFTISSAPE--QSDT-LWLHVSRM-GQWTN-----	502
Dr-Nox5	DYVYINIPKIAK--YEWHPFTISSAPE--QQET-LWLHIRSM-GQWTN-----	385
Sp-Nox5A	DYIFINIPQIAK--YEWHPFTISSAPE--QGGT-ISMHIRSA-GNWTN-----	499
Sp-Nox5B	EYIYHNIPSIAS--HEWHPFTISSAPE--QQEY-LTLHIRCV-GHWTK-----	464
Ag-Nox5	DYVFNIPAIK--YEWHPFTLSSAPE--QEDY-IWLHIRGV-GEWTN-----	549
Am-Nox5	DYVFNIPVIK--YEWHPFTISSAPE--QEDY-IWLHIRAV-GEWTN-----	551
Dm-Nox5	DYVFNIPAIK--YEWHPFTISSAPE--QEDY-MWLHIRTV-GEWTN-----	554
Dd-NoxC	QYLLINVPKISK--LQWHPFTMTSSP---LEDK-IYVHIRVT-GNWTK-----	874
Mg-NoxC	QWAYLQVPTISM--WQWHPFTISVCV---GKE-MRMHIKTD-GNWTG-----	517
Fg-NoxC	QYIFLQVPKISF--FQWHPFTVDFCR---GNK-MMLHIKTD-GNWTA-----	442
Cc-NoxD	QYAEVQVFIN--REWHPFTIASAPQ---DKT-MCFYIKAL-GDWTK-----	305
Py-NoxD	QYAEVKVPAISS--VQWHPFTIASAPH---EPE-LVFIKKS-GDWTT-----	301
Xt-Duox1	QWVRIACLDLGT--DEYHPFTLTSAP---HEDT-LSLHIRAV-GPWT-----	1298
Xt-Duox2	QWVRIACLALGT--NEYHPFTLTSAP---HEDI-LSLHIRAA-GPWT-----	1350
Gg-Duox	QWVRIACMLGT--TEYHPFTLTSAP---HEDT-LSLHIRAV-GPWT-----	1236
Tr-Duox	QWVRIACLALGT--DEYHPFTLTSAP---HEDT-LSLHIRAV-GPWT-----	1268
Tn-Duox	QWVRIACLALGA--DEYHPFTLTSAP---HEGT-LSLHIRAV-GPWT-----	1419
Ol-Duox	QWVRIACLMLGA--DEYHPFTLTSAP---HEET-LSLHIRAV-GPWT-----	1345
Dr-Duox	QWVRIACLTLGT--DEYHPFTLTSAP---HEET-LSLHIRAA-GPWT-----	1296
Mm-Duox2	QWVRIACLDLGT--NEYHPFTLTSAP---HEDT-LSLHIRAV-GPWT-----	1310
Rn-Duox2	QWVRIACLSLGT--NEYHPFTLTSAP---HEDT-LSLHIRAV-GPWT-----	1310
Hs-Duox2	QWVRIACLALGT--TEYHPFTLTSAP---HEDT-LSLHIRAV-GPWT-----	1341
Cf-Duox2	QWVRIACLALGT--NEYHPFTLTSAP---HEDT-LSLHIRAV-GPWT-----	1093
Hs-Duox1	QWVRIACLALGT--TEYHPFTLTSAP---HEDT-LSLHIRAA-GPWT-----	1344
Cf-Duox1	QWVRIACLALGT--TEYHPFTLTSAP---HEDT-LSLHIRAA-GPWT-----	1345
Rn-Duox1	QWVRIACLALGT--TEYHPFTLTSAP---HEDT-LSLHIRAA-GPWT-----	1340
Mm-Duox1	QWVRIACLALGT--TEYHPFTLTSAP---HEDT-LSLHIRAA-GPWT-----	1344
Ci-DuoxA	QWVRIACLAQSS--NEYHPFTLTSAP---HEDT-LKLHIRAV-GPWTI-----	1369
Ci-DuoxC	QWVRIACLAQSS--SEYHPFTLSSAP---HEDT-LKLHIRAV-GPWTR-----	1234
Ci-DuoxD	QWVRIACVGLSK--WEYHPFTLSSSP---DEET-LQLHIRAV-GPWTR-----	1312
Sp-Duox	QWVRIACKTLSS--SEYHPFTLTSAP---HEEN-LSLHIRAI-GPWTM-----	1465
Dm-Duox	QWVRLSCTAFRP--HEMHSFTLTSAP---HENF-LSCHIKAQ-GPWTW-----	1265
Ag-Duox	QWVRLSCTEIKP--EEMHSFTLTSAP---HENF-LSCHIKAQ-GPWTW-----	1266
Am-Duox	QWVRLSCTAFRS--NEFHSFTLTSAP---HENF-LSCHIKAQ-GPWTW-----	1271
Ci-DuoxB	QWVRIASLSLGT--NEYHPFTLTSAP---HERY-LSLHIRSV-GPWTW-----	1288
Ce-Duox1	QWVTVSSPSISCTFNESHAFSIASS---QDEN-MKLYIKAV-GPWTW-----	1287
Ce-Duox2	QWVTVSSPSISCTFNESHAFSIASS---QDEN-MKLYIKAV-GPWTS-----	1293

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Hs-Nox1	-----
Cf-Nox1	-----
Mm-Nox1	-----

Rn-Nox1	-----
Gg-Nox1	-----
Xt-Nox1	-----
Tn-Nox1	-----
Tr-Nox1	-----
O1-Nox1	-----
Dr-Nox1	-----
Mm-Nox2	-----
Rn-Nox2	-----
Hs-Nox2	-----
Cf-Nox2	-----
Gg-Nox2	-----
Xt-Nox2	-----
Tn-Nox2	-----
Tr-Nox2	-----
O1-Nox2	-----
Dr-Nox2	-----
Hs-Nox3	-----
Cf-Nox3	-----
Mm-Nox3	-----
Rn-Nox3	-----
Gg-Nox3	-----
Ci-Nox2	-----
Sp-Nox2A	-----
Sp-Nox2B	-----
Mm-Nox4	-----
Rn-Nox4	-----
Hs-Nox4	-----
Cf-Nox4	-----
Gg-Nox4	-----
Xt-Nox4	-----
O1-Nox4	-----
Tr-Nox4	-----
Ci-Nox4	-----
Ag-Nox	-----
Pa-NoxA	-----
Mg-NoxA	-----
Fg-NoxA	-----
An-NoxA	-----
Pa-NoxB	-----
Fg-NoxB	-----
Mg-NoxB	-----
Dd-NoxA	-----
Dd-NoxB	-----
At-rbohC	-----
At-rbohG	-----
At-rbohA	-----
At-rbohB	-----
At-rbohD	-----
At-rbohF	-----
At-rbohI	-----
At-rbohE	-----
At-rbohH	-----
At-rbohJ	-----
Hs-Nox5	-----

Cf-Nox5	-----	
Bt-Nox5	-----	
Md-Nox5	-----	
Xt-Nox5	-----	
Tr-Nox5	VSTKRLSVTLRKHRLPKAKVHTDTQRHLRPVAQLFTLTCVSSPQDEVFSSAKSNKAVAN	503
Tn-Nox5	-----TPQLGGVLGGE-----	359
Gg-Nox5	-----RLYEFFRQPEPLQPHGNLERKGGGSGCRWVSAGLCFLQ-----	516
O1-Nox5	-----	
Dr-Nox5	-----	
Sp-Nox5A	-----	
Sp-Nox5B	-----	
Ag-Nox5	-----	
Am-Nox5	-----	
Dm-Nox5	-----	
Dd-NoxC	-----	
Mg-NoxC	-----	
Fg-NoxC	-----	
Cc-NoxD	-----	
Py-NoxD	-----	
Xt-Duox1	-----	
Xt-Duox2	-----	
Gg-Duox	-----	
Tr-Duox	-----	
Tn-Duox	-----	
O1-Duox	-----	
Dr-Duox	-----	
Mm-Duox2	-----	
Rn-Duox2	-----	
Hs-Duox2	-----	
Cf-Duox2	-----	
Hs-Duox1	-----	
Cf-Duox1	-----	
Rn-Duox1	-----	
Mm-Duox1	-----	
Ci-DuoxA	-----	
Ci-DuoxC	-----	
Ci-DuoxD	-----	
Sp-Duox	-----	
Dm-Duox	-----	
Ag-Duox	-----	
Am-Duox	-----	
Ci-DuoxB	-----	
Ce-Duox1	-----	
Ce-Duox2	-----	

Hs-Nox1	-----	
Cf-Nox1	-----	
Mm-Nox1	-----	
Rn-Nox1	-----	
Gg-Nox1	-----	
Xt-Nox1	-----	
Tn-Nox1	-----	

Tr-Nox1	-----
Ol-Nox1	-----
Dr-Nox1	-----
Mm-Nox2	-----
Rn-Nox2	-----
Hs-Nox2	-----
Cf-Nox2	-----
Gg-Nox2	-----
Xt-Nox2	-----
Tn-Nox2	-----
Tr-Nox2	-----
Ol-Nox2	-----
Dr-Nox2	-----
Hs-Nox3	-----
Cf-Nox3	-----
Mm-Nox3	-----
Rn-Nox3	-----
Gg-Nox3	-----
Ci-Nox2	-----
Sp-Nox2A	-----
Sp-Nox2B	-----
Mm-Nox4	-----
Rn-Nox4	-----
Hs-Nox4	-----
Cf-Nox4	-----
Gg-Nox4	-----
Xt-Nox4	-----
Ol-Nox4	-----
Tr-Nox4	-----
Ci-Nox4	-----
Ag-Nox	-----
Pa-NoxA	-----
Mg-NoxA	-----
Fg-NoxA	-----
An-NoxA	-----
Pa-NoxB	-----
Fg-NoxB	-----
Mg-NoxB	-----
Dd-NoxA	-----
Dd-NoxB	-----
At-rbohC	-----
At-rbohG	-----
At-rbohA	-----
At-rbohB	-----
At-rbohD	-----
At-rbohF	-----
At-rbohI	-----
At-rbohE	-----
At-rbohH	-----
At-rbohJ	-----
Hs-Nox5	-----
Cf-Nox5	-----
Bt-Nox5	-----
Md-Nox5	-----
Xt-Nox5	-----

Tr-Nox5	EDDAVTLMMYQQRSSGADVVSAPAPESQVPPEPLLDLSPAERG-----	547
Tn-Nox5	-----	
Gg-Nox5	AQRLNRAVCRLQGGLRAVPVGRSAPAARSTQHRLGLSKKGNKHTGDAAIELTSYRRSGA	576
Ol-Nox5	-----	
Dr-Nox5	-----	
Sp-Nox5A	-----	
Sp-Nox5B	-----	
Ag-Nox5	-----	
Am-Nox5	-----	
Dm-Nox5	-----	
Dd-NoxC	-----	
Mg-NoxC	-----	
Fg-NoxC	-----	
Cc-NoxD	-----	
Py-NoxD	-----	
Xt-Duox1	-----	
Xt-Duox2	-----	
Gg-Duox	-----	
Tr-Duox	-----	
Tn-Duox	-----	
Ol-Duox	-----	
Dr-Duox	-----	
Mm-Duox2	-----	
Rn-Duox2	-----	
Hs-Duox2	-----	
Cf-Duox2	-----	
Hs-Duox1	-----	
Cf-Duox1	-----	
Rn-Duox1	-----	
Mm-Duox1	-----	
Ci-DuoxA	-----	
Ci-DuoxC	-----	
Ci-DuoxD	-----	
Sp-Duox	-----	
Dm-Duox	-----	
Ag-Duox	-----	
Am-Duox	-----	
Ci-DuoxB	-----	
Ce-Duox1	-----	
Ce-Duox2	-----	

Hs-Nox1	-----
Cf-Nox1	-----
Mm-Nox1	-----
Rn-Nox1	-----
Gg-Nox1	-----
Xt-Nox1	-----
Tn-Nox1	-----
Tr-Nox1	-----
Ol-Nox1	-----
Dr-Nox1	-----
Mm-Nox2	-----

Dr-Nox5	-----
Sp-Nox5A	-----
Sp-Nox5B	-----
Ag-Nox5	-----
Am-Nox5	-----
Dm-Nox5	-----
Dd-NoxC	-----
Mg-NoxC	-----
Fg-NoxC	-----
Cc-NoxD	-----
Py-NoxD	-----
Xt-Duox1	-----
Xt-Duox2	-----
Gg-Duox	-----
Tr-Duox	-----
Tn-Duox	-----
O1-Duox	-----
Dr-Duox	-----
Mm-Duox2	-----
Rn-Duox2	-----
Hs-Duox2	-----
Cf-Duox2	-----
Hs-Duox1	-----
Cf-Duox1	-----
Rn-Duox1	-----
Mm-Duox1	-----
Ci-DuoxA	-----
Ci-DuoxC	-----
Ci-DuoxD	-----
Sp-Duox	-----
Ce-Duox1	-----
Ce-Duox2	-----
Dm-Duox	-----
Ag-Duox	-----
Am-Duox	-----
Ci-DuoxB	-----

Hs-Nox1	-----NLIRAFEQQYS-----	374
Cf-Nox1	-----NLIRAFEQQCS-----	374
Mm-Nox1	-----NLIRTFEQQHS-----	373
Rn-Nox1	-----NLIRTFEQQHS-----	373
Gg-Nox1	-----HIIDTFQQKL-----	375
Xt-Nox1	-----NLIKVFQEAE-----	375
Tn-Nox1	-----KLIDIMQKLPEG-----	371
Tr-Nox1	-----KLIEIMQQLPEG-----	369
O1-Nox1	-----QLIDTMQKLPEG-----	374
Dr-Nox1	-----KLLKMVENLPEG-----	373
Mm-Nox2	-----GLFNACGCDKQE-----	375
Rn-Nox2	-----GLFNACGCDKQE-----	375
Hs-Nox2	-----GLFNACGCDKQE-----	375
Cf-Nox2	-----GLFNACGCDKQE-----	375
Gg-Nox2	-----GLFNACGCDKQE-----	375

Xt-Nox2	-----GLFKACGCDKTE-----	375
Tn-Nox2	-----ALYEACGGDRSE-----	373
Tr-Nox2	-----ALYEACGGDKSE-----	373
O1-Nox2	-----ALYEACGGNKSE-----	374
Dr-Nox2	-----ALYSACGGDKTA-----	373
Hs-Nox3	-----ALLEAFGAEGQA-----	373
Cf-Nox3	-----ALWKAFGAEGQA-----	373
Mm-Nox3	-----ALLKAFRVEGQA-----	373
Rn-Nox3	-----ALLKAFGAEGQA-----	373
Gg-Nox3	-----ALFKAFGAEEKT-----	372
Ci-Nox2	-----GLSKVLGADEAGN-----	387
Sp-Nox2A	-----DLFKAMGADKPE-----	386
Sp-Nox2B	-----ELAVKMGADQAE-----	360
Mm-Nox4	-----RFRDLLLPPSSQD-----	392
Rn-Nox4	-----RFRDLLLPPSSQD-----	392
Hs-Nox4	-----RFRDLLLPPSSQD-----	392
Cf-Nox4	-----RFRDLLLPPSNQD-----	398
Gg-Nox4	-----RFRDLLLHNSQD-----	357
Xt-Nox4	-----RFYELLESHTAG-----	385
O1-Nox4	-----HFAHLLLPQPRAA-----	370
Tr-Nox4	-----RFTQLLLTGSRTD-----	371
Ci-Nox4	-----ELRDLMVRELNPV-----	456
Ag-Nox	-----ELYDRIVQREQCK-----	369
Pa-NoxA	-----ELGNAVGAAGGIHA-----	327
Mg-NoxA	-----ALGDATGAGAAQA-----	353
Fg-NoxA	-----ELGDALGAGAAQA-----	330
An-NoxA	-----ALGDALGCGPAQA-----	325
Pa-NoxB	-----AVAETLGCEFDKK-----	371
Fg-NoxB	-----ELAKSLGCDWSKK-----	360
Mg-NoxB	-----GVSKALGCDWDRK-----	375
Dd-NoxA	-----KLSTLLNPDKKMG-----	321
Dd-NoxB	-----KLFKLLNPDNKLK-----	498
At-rbohC	-----ALKGVFSEVC-----	672
At-rbohG	-----AIQGVFSEVS-----	625
At-rbohA	-----QLRSLFSEVC-----	664
At-rbohB	-----QLKSLYSKVC-----	618
At-rbohD	-----KLRTVFSEVC-----	695
At-rbohF	-----ELKRVFSEVC-----	706
At-rbohI	-----GIKKAFSVVC-----	694
At-rbohE	-----ELRRVLTVG-----	683
At-rbohH	-----ELRSRFAKTC-----	636
At-rbohJ	-----ELRNRFETC-----	646
Hs-Nox5	-----RLYESFKAS-----	497
Cf-Nox5	-----RLYESFKTSCPMD-----	528
Bt-Nox5	-----RLFESFKKPEPVF-----	536
Md-Nox5	-----RLYEYFKAADPIC-----	508
Xt-Nox5	-----SLYEYFHYPQTVN-----	518
Tr-Nox5	-----FLQSLEIIIGSATSRSKAQLRNAANKM-----	608
Tn-Nox5	-----GDCTLSSPRLPVAPHPL-----	377
Gg-Nox5	ISHHSHWAQGSWESGCGECWKLWEQGGGGFPLL-----	669
O1-Nox5	-----RLYEYFRQT-----	511
Dr-Nox5	-----RLYEYFRQP-----	394
Sp-Nox5A	-----RLYAFFEDR-----	508
Sp-Nox5B	-----RLYDVVRERELTLEHENAGFGEIDKDHDEPLEVIVDVSS-----	504
Ag-Nox5	-----RLHNFFEREQERLHN-----GEIPALVAGRVGGAGGPVG-----	583

Am-Nox5	-----SLYSYFEKEQMKLQR-----DNIFPIEN-----	574
Dm-Nox5	-----RLYRYFEREQKQLQQ-----SGSSQEIPQHMHAIPSPF	588
Dd-NoxC	-----KLFRWLSIKKQLQ-----	887
Mg-NoxC	-----RLRDLAKDAPQ-----	528
Fg-NoxC	-----KLRELGGDS-----	451
Cc-NoxD	-----ELRGAFQARVDG-----	317
Py-NoxD	-----NLHAMFAS-----	309
Xt-Duox1	-----KLRELYSSKKVENIP-----	1313
Xt-Duox2	-----RLRELYSPQSV AELGG-----	1366
Gg-Duox	-----RLRELYSPESLALIGK-----	1252
Tr-Duox	-----QLRELYAEESVLRGLSE-----	1285
Tn-Duox	-----RLRELYTQDSLQQ-----	1432
O1-Duox	-----QLRELYTDESLE-----	1358
Dr-Duox	-----KLREAYSPEKHQS-----	1309
Mm-Duox2	-----RLREIYSPVGGT-----	1323
Rn-Duox2	-----RLREIYSPVGGT-----	1323
Hs-Duox2	-----RLREIYSSPKGNG-----	1354
Cf-Duox2	-----RLREYSLPKGDG-----	1106
Hs-Duox1	-----RLREIYSAPTGDR-----	1357
Cf-Duox1	-----RLREIYSPPTGDG-----	1358
Rn-Duox1	-----RLREIYSPPTGDT-----	1353
Mm-Duox1	-----RLREIYSPPTGDT-----	1357
Ci-DuoxA	-----NLRSIYNPD-VLRDSP-----	1384
Ci-DuoxC	-----NLRNIYDPN-VLRDSP-----	1249
Ci-DuoxD	-----NIRNIYK-----EGEP-----	1323
Sp-Duox	-----NLRATYDPN-VVREHP-----	1480
Ce-Duox1	-----KLRESELIRS-LNTGSP-----	1302
Ce-Duox2	-----KLRESELIRS-LNTGSP-----	1308
Dm-Duox	-----KLRNYFDPCNYPED-----	1280
Ag-Duox	-----KLRNYFDPCNYPDD-----	1281
Am-Duox	-----KLRNYFDPCNYPEDE-----	1287
Ci-DuoxB	-----NLRNLYQTA-VEHQGK-----	1303

Hs-Nox1	-----PIP-----	377
Cf-Nox1	-----PIP-----	377
Mm-Nox1	-----PMP-----	376
Rn-Nox1	-----PMP-----	376
Gg-Nox1	-----EMP-----	378
Xt-Nox1	-----NPP-----	378
Tn-Nox1	-----AQQP-----	375
Tr-Nox1	-----AQQP-----	373
O1-Nox1	-----AQQP-----	378
Dr-Nox1	-----GGGPKYVLL-----	382
Mm-Nox2	-----FQDAWKLP-----	383
Rn-Nox2	-----FQDAWKLP-----	383
Hs-Nox2	-----FQDAWKLP-----	383
Cf-Nox2	-----FQDAWKLP-----	383
Gg-Nox2	-----FQDAWKLP-----	383
Xt-Nox2	-----FQDAWKMP-----	383
Tn-Nox2	-----PQDAWKLP-----	381
Tr-Nox2	-----PQDAWKLP-----	381
O1-Nox2	-----LQDAWKLP-----	382

Dr-Nox2	-----VLDAWTLP-----	381
Hs-Nox3	-----LQEPWSLP-----	381
Cf-Nox3	-----LKEPWSLP-----	381
Mm-Nox3	-----PSELCSMP-----	381
Rn-Nox3	-----PSELCSMP-----	381
Gg-Nox3	-----FKELWMLP-----	380
Ci-Nox2	-----EVQPSWKMP-----	396
Sp-Nox2A	-----QQSQDELA-----	394
Sp-Nox2B	-----PLSITQLP-----	368
Mm-Nox4	-----SEILP-----	397
Rn-Nox4	-----SEILP-----	397
Hs-Nox4	-----SEILP-----	397
Cf-Nox4	-----SEILP-----	403
Gg-Nox4	-----AEILP-----	362
Xt-Nox4	-----TEILP-----	390
O1-Nox4	-----LEILP-----	375
Tr-Nox4	-----MKTLP-----	376
Ci-Nox4	-----VEILKDKIIAGGNFLEKDELSNRGETEYKCPDN	491
Ag-Nox	-----RNLGG-----	374
Pa-NoxA	-----KLY-----	330
Mg-NoxA	-----KLY-----	356
Fg-NoxA	-----KLY-----	333
An-NoxA	-----RDL-----	328
Pa-NoxB	-----K-----	372
Fg-NoxB	-----KDA-----	363
Mg-NoxB	-----G-----	376
Dd-NoxA	-----IVQ-----	324
Dd-NoxB	-----LIQ-----	501
At-rbohC	-----KPPPAGVSGLLR-----	684
At-rbohG	-----KPPVVG-----	631
At-rbohA	-----KPRPPDEHRLNR-----	676
At-rbohB	-----QLPSTSQSGLFI-----	630
At-rbohD	-----KPPTAGKSGLLR-----	707
At-rbohF	-----EPPVGGKSGLLR-----	718
At-rbohI	-----HAPEAGKSGLLR-----	706
At-rbohE	-----KDLSTCVIGRSK-----	695
At-rbohH	-----EPTQAAAKPKPNSLMRM-----	653
At-rbohJ	-----EPHQKS-KPSPNDLIRM-----	662
Hs-Nox5	-----DPLGR-GSKRLSRSVTMRKSQRS-----	519
Cf-Nox5	-----CDPKP-----	533
Bt-Nox5	-----CGSKR-----	541
Md-Nox5	-----LGAKR-----	513
Xt-Nox5	-----RHETKR-----	524
Tr-Nox5	-----HLNNFLFKMSFLADEGKQENHSLV-----	632
Tn-Nox5	-----HGPVDQPPVRVLPGTGE-----	394
Gg-Nox5	-----LMDAPHLQVSVGPGESQQQLCSIKVSSGERNGVG--	702
O1-Nox5	-----DSMEL-CSGRLATSLKRRRQAK-----	533
Dr-Nox5	-----DTQTNKRLTASLRSRRHQSR-----	412
Sp-Nox5A	-----QKRNRDETELLGSASDIRVAMET-----	532
Sp-Nox5B	TKSTTAVEPNGQSIISDTHSNRNGRRSSQTYSKRRRTASGAINSGFEPELNGDKDGTK	564
Ag-Nox5	PRAGDATTAGIMKQRHPPGTSKLAMEGYSAPSPVATSTAQP-----AKFERQMSDNRA	637
Am-Nox5	-----RNNPNVSESVSMNGKFLSPIPRGNRRS-----FDNSVSVSDD--	611
Dm-Nox5	MLLNERNPATAGERSATPQTDFLAKNLGVAVPPVPRPRQNRKPAPGAPIDPPATGVNR	648
Dd-NoxC	-----QQQQLYNNIKQQNVLP-----	903
Mg-NoxC	-----	

Fg-NoxC -----
Cc-NoxD -----
Py-NoxD -----
Xt-Duox1 -----
Xt-Duox2 -----
Gg-Duox -----
Tr-Duox -----
Tn-Duox -----
O1-Duox -----
Dr-Duox -----
Mm-Duox2 -----
Rn-Duox2 -----
Hs-Duox2 -----
Cf-Duox2 -----
Hs-Duox1 -----
Cf-Duox1 -----
Rn-Duox1 -----
Mm-Duox1 -----
Ci-DuoxA -----
Ci-DuoxC -----
Ci-DuoxD -----
Sp-Duox -----
Ce-Duox1 -----
Ce-Duox2 -----
Dm-Duox -----
Ag-Duox -----
Am-Duox -----
Ci-DuoxB -----

Hs-Nox1 -----
Cf-Nox1 -----
Mm-Nox1 -----
Rn-Nox1 -----
Gg-Nox1 -----
Xt-Nox1 -----
Tn-Nox1 -----
Tr-Nox1 -----
O1-Nox1 -----
Dr-Nox1 -----
Mm-Nox2 -----
Rn-Nox2 -----
Hs-Nox2 -----
Cf-Nox2 -----
Gg-Nox2 -----
Xt-Nox2 -----
Tn-Nox2 -----
Tr-Nox2 -----
O1-Nox2 -----
Dr-Nox2 -----
Hs-Nox3 -----
Cf-Nox3 -----
Mm-Nox3 -----

Rn-Nox3	-----	
Gg-Nox3	-----	
Ci-Nox2	-----	
Sp-Nox2A	-----	
Sp-Nox2B	-----	
Mm-Nox4	-----	
Rn-Nox4	-----	
Hs-Nox4	-----	
Cf-Nox4	-----	
Gg-Nox4	-----	
Xt-Nox4	-----	
O1-Nox4	-----	
Tr-Nox4	-----	
Ci-Nox4	SQYLATMASPNQSINKPCMVPNFRTQETDFQMCTL-----	527
Ag-Nox	-----	
Pa-NoxA	-----	
Mg-NoxA	-----	
Fg-NoxA	-----	
An-NoxA	-----	
Pa-NoxB	-----	
Fg-NoxB	-----	
Mg-NoxB	-----	
Dd-NoxA	-----	
Dd-NoxB	-----	
At-rbohC	-----	
At-rbohG	-----	
At-rbohA	-----	
At-rbohB	-----	
At-rbohD	-----	
At-rbohF	-----	
At-rbohI	-----	
At-rbohE	-----	
At-rbohH	-----	
At-rbohJ	-----	
Hs-Nox5	-----SKGSE-----	524
Cf-Nox5	-----	
Bt-Nox5	-----	
Md-Nox5	-----	
Xt-Nox5	-----	
Tr-Nox5	-----	
Tn-Nox5	-----	
Gg-Nox5	-----	
O1-Nox5	-----AEVSA-----	538
Dr-nox5	-----AQLTAKLSEN--	424
Sp-Nox5A	-----EEVEETHAGEF	544
Sp-Nox5B	TVTEGKPYNTGGQNDNESVTQKVNAQLSLPRKADHPSASQGDCQPMSYKELGEVSMILEV	624
Ag-Nox5	FKKIQATLQRTFSRRDQLIPRSGGAGGVGGIANEG--FSGDGQKVPLEKLSMPDMQNKF	695
Am-Nox5	-EKITQSPQSVIGNLFKFIQNYLSITDVKKMSNNRKLHLLVSKMPLEKSVSPDMLPGK	670
Dm-Nox5	IRSIKKTLQRTFSRKEAVDPKKGIPNGAFIADGER--EDSNLKQRPLEKSISLPDISVKS	706
Dd-NoxC	-----	
Mg-NoxC	-----	
Fg-NoxC	-----	
Cc-NoxD	-----	
Py-NoxD	-----	
Xt-Duox1	-----	

Xt-Duox2
Gg-Duox
Tr-Duox
Tn-Duox
O1-Duox
Dr-Duox
Mm-Duox2
Rn-Duox2
Hs-Duox2
Cf-Duox2
Hs-Duox1
Cf-Duox1
Rn-Duox1
Mm-Duox1
Ci-DuoxA
Ci-DuoxC
Ci-DuoxD
Sp-Duox
Dm-Duox
Ag-Duox
Am-Duox
Ci-DuoxB
Ce-Duox1
Ce-Duox2

Hs-Nox1
Cf-Nox1
Mm-Nox1
Rn-Nox1
Gg-Nox1
Xt-Nox1
Tn-Nox1
Tr-Nox1
O1-Nox1
Dr-Nox1
Mm-Nox2
Rn-Nox2
Hs-Nox2
Cf-Nox2
Gg-Nox2
Xt-Nox2
Tn-Nox2
Tr-Nox2
O1-Nox2
Dr-Nox2
Hs-Nox3
Cf-Nox3
Mm-Nox3
Rn-Nox3
Gg-Nox3
Ci-Nox2
Sp-Nox2A

Sp-Nox2B	-----	
Mm-Nox4	-----	
Rn-Nox4	-----	
Hs-Nox4	-----	
Cf-Nox4	-----	
Gg-Nox4	-----	
Xt-Nox4	-----	
O1-Nox4	-----	
Tr-Nox4	-----	
Ci-Nox4	-----	
Ag-Nox	-----	
Pa-NoxA	-----	
Mg-NoxA	-----	
Fg-NoxA	-----	
An-NoxA	-----	
Pa-NoxB	-----	
Fg-NoxB	-----	
Mg-NoxB	-----	
Dd-NoxA	-----	
Dd-NoxB	-----	
At-rbohC	-----	
At-rbohG	-----	
At-rbohA	-----	
At-rbohB	-----	
At-rbohD	-----	
At-rbohF	-----	
At-rbohI	-----	
At-rbohE	-----	
At-rbohH	-----	
At-rbohJ	-----	
Hs-Nox5	-----	
Cf-Nox5	-----	
Bt-Nox5	-----	
Md-Nox5	-----	
Xt-Nox5	-----	
Tr-Nox5	-----	
Tn-Nox5	-----	
Gg-Nox5	-----	
O1-Nox5	-----	
Dr-Nox5	-----	
Sp-Nox5A	IRLREMECDAAEADV-----	559
Sp-Nox5B	NGDSFKMKSLNSRQS-----	639
Ag-Nox5	KKRERMMVLREYMRSESESFDEVQIRKARLQSLGLAYLSPQNKSLAQSFYMRNKPTII	755
Am-Nox5	KKNDQLIATQGYRRKQSNN-----LST-----	692
Dm-Nox5	KKRSRLKALRALGRSESESAFDEKRVRRARNNSVGLAYLSPQNKSLAQSFYMRNKPTII	766
Dd-NoxC	-----	
Mg-NoxC	-----	
Fg-NoxC	-----	
Cc-NoxD	-----	
Py-NoxD	-----	
Ci-DuoxA	-----	
Ci-DuoxC	-----	
Ci-DuoxD	-----	
Sp-Duox	-----	
Xt-Duox1	-----	

Xt-Duox2
Gg-Duox
Tr-Duox
Tn-Duox
O1-Duox
Dr-Duox
Mm-Duox2
Rn-Duox2
Hs-Duox2
Cf-Duox2
Hs-Duox1
Cf-Duox1
Rn-Duox1
Mm-Duox1
Dm-Duox
Ag-Duox
Am-Duox
Ci-DuoxB
Ce-Duox1
Ce-Duox2

Hs-Nox1
Cf-Nox1
Mm-Nox1
Rn-Nox1
Gg-Nox1
Xt-Nox1
Tn-Nox1
Tr-Nox1
O1-Nox1
Dr-Nox1
Mm-Nox2
Rn-Nox2
Hs-Nox2
Cf-Nox2
Gg-Nox2
Xt-Nox2
Tn-Nox2
Tr-Nox2
O1-Nox2
Dr-Nox2
Hs-Nox3
Cf-Nox3
Mm-Nox3
Rn-Nox3
Gg-Nox3
Ci-Nox2
Sp-Nox2A
Sp-Nox2B
Mm-Nox4
Rn-Nox4
Hs-Nox4

Cf-Nox4	-----	
Gg-Nox4	-----	
Xt-Nox4	-----	
O1-Nox4	-----	
Tr-Nox4	-----	
Ci-Nox4	-----SNSTISVYDNHEMPHQENIDDTCKKTSSTCLSQYSLESESQR	571
Ag-Nox	-----	
Pa-NoxA	-----	
Mg-NoxA	-----	
Fg-NoxA	-----	
An-NoxA	-----	
Pa-NoxB	-----	
Fg-NoxB	-----	
Mg-NoxB	-----	
Dd-NoxA	-----	
Dd-NoxB	-----	
At-rbohC	-----ADMLHGANN-----	693
At-rbohG	-----DMLNGANS-----	639
At-rbohA	-----ADSKHWDYI-----	685
At-rbohB	-----ADIGQANNI-----	639
At-rbohD	-----ADGGDGN-----	714
At-rbohF	-----ADETTKK-----	725
At-rbohI	-----ADVPNQR-----	713
At-rbohE	-----FSAYCNIDM-----	704
At-rbohH	-----ETRAAGVNPHEESQ-----	668
At-rbohJ	-----ETRARGANPHVEESQ-----	677
Hs-Nox5	-----ILLEKHKFCN-----	534
O1-Nox5	-----KFAENHRVCN-----	548
Dr-Nox5	-----HRYCN-----	429
Sp-Nox5A	-----VKPTLNHRGANGNLPGLPRGYSVEREESEDNQ	592
Sp-Nox5B	-----IDVQEAPRGSTTKRQSLRVRQSLVGREKRSVCG	672
Ag-Nox5	AFKTPSLENCEPRDSTNSIVVSPGVFTQKDAEEGRTAGALPTSGAASSVVAVGSGAASAA	815
Am-Nox5	-----IQSAAEEGRLQMKFEENSKKN-----HNDI	717
Dm-Nox5	AFKTPSMEEREHQVAAG---EANGASPASRAEQQLSSRMDSADKQLARLSLSAEGASK	823
Cf-Nox5	-----	
Bt-Nox5	-----	
Md-Nox5	-----	
Xt-Nox5	-----	
Tr-Nox5	-----	
Tn-Nox5	-----	
Gg-Nox5	-----	
Dd-NoxC	-----	
Mg-NoxC	-----	
Fg-NoxC	-----	
Cc-NoxD	-----	
Py-NoxD	-----	
Xt-Duox1	-----	
Xt-Duox2	-----	
Gg-Duox	-----	
Tr-Duox	-----	
Tn-Duox	-----	
O1-Duox	-----	
Dr-Duox	-----	
Mm-Duox2	-----	
Rn-Duox2	-----	

Hs-Duox2 -----
 Cf-Duox2 -----
 Hs-Duox1 -----
 Cf-Duox1 -----
 Rn-Duox1 -----
 Mm-Duox1 -----
 Ci-DuoxA -----
 Ci-DuoxC -----
 Ci-DuoxD -----
 Sp-Duox -----
 Dm-Duox -----
 Ag-Duox -----
 Am-Duox -----
 Ci-DuoxB -----
 Ce-Duox1 -----
 Ce-Duox2 -----

Hs-Nox1 -----
 Cf-Nox1 -----
 Mm-Nox1 -----
 Rn-Nox1 -----
 Gg-Nox1 -----
 Xt-Nox1 -----
 Tn-Nox1 -----
 Tr-Nox1 -----
 OI-Nox1 -----
 Dr-Nox1 ----- WIFITTS 389
 Mm-Nox2 -----
 Rn-Nox2 -----
 Hs-Nox2 -----
 Cf-Nox2 -----
 Gg-Nox2 -----
 Xt-Nox2 -----
 Tn-Nox2 -----
 Tr-Nox2 -----
 OI-Nox2 -----
 Dr-Nox2 -----
 Hs-Nox3 -----
 Cf-Nox3 -----
 Mm-Nox3 -----
 Rn-Nox3 -----
 Gg-Nox3 -----
 Ci-Nox2 -----
 Sp-Nox2A -----
 Sp-Nox2B -----
 Mm-Nox4 ----- FIHSRNYP 405
 Rn-Nox4 ----- FIQSRNYP 405
 Hs-Nox4 ----- FIQSRNYP 405
 Cf-Nox4 ----- VIQSRKYP 411
 Gg-Nox4 ----- IFQQRHYP 370
 Xt-Nox4 ----- KCQQRKNP 398
 OI-Nox4 ----- VVHQRRYP 383

Tr-Nox4	-----MVQHRKYP	384
Ci-Nox4	NLPKSTTLHSKDQQLQNETTLYSEDQRNVPKSTALVSEACSTKNDIHLPCNQTVSKQLP	631
Ag-Nox	-----VDPYRRI	381
Pa-NoxA	-----EGVDPLG-----MYDVALANGQKMP	350
Mg-NoxA	-----EGVDPMG-----MYEVALQNGQQMP	376
Fg-NoxA	-----DDVDPMG-----MYEVALQNGDQMP	353
An-NoxA	-----EGLDPMG-----MYEVALQNGQQMP	348
Pa-NoxB	-----GDASKVVGVDQSNDEVPALRRVLP	397
Fg-NoxB	-----GDASKVVGVTGREAEIDPAIRRVLP	388
Mg-NoxB	-----DASKVVGVTNGENPDVDPALKRVLP	400
Dd-NoxA	-----ENVLKSPDG--KP	335
Dd-NoxB	-----EDLKSTQNRGKRR	514
At-rbohC	-----PDFP	697
At-rbohG	-----PRFP	643
At-rbohA	-----PDFP	689
At-rbohB	-----TRFP	643
At-rbohD	-----LPFP	718
At-rbohF	-----SLP	728
At-rbohI	-----SFP	716
At-rbohE	-----INRP	708
At-rbohH	-----VLFP	672
At-rbohJ	-----ALFP	681
Hs-Nox5	-----I	535
Cf-Nox5	-----LSRSLKMRRSQRRPEVSEKS-----SENHLFCNI	562
Bt-Nox5	-----LSRRLEMKRSQRKPQVSEMS-----SENHQFCNI	570
Md-Nox5	-----LTQSLKLRRSQRKSQKEGPPSP-----VNENHRFCKI	544
Xt-Nox5	-----QILTQKNRQHHSQVSANDMKCSY-----DMFNRHQFIDR	558
Tr-Nox5	-----SDLSVTYDIEQILLKTSAHTDTEESVKTSDAHSMTRYRF	671
Tn-Nox5	-----PDLQQHQEADGEPEKAAAAAEGPGFGQVWRQSSVLQHQV	433
Gg-Nox5	-----AVLSRVLALPRAEHPASVGLLSP-----CFWVLSLYLS	735
O1-Nox5	-----I	549
Dr-Nox5	-----I	430
Sp-Nox5A	HQH-----RTIACQTFEMKGAKSWRSSLRE-----EKI	621
Sp-Nox5B	KPN-----GDVNRKMSLVTLRRNGARHSLDLSKDLGGRPHITGL	710
Ag-Nox5	SSN-----PASRPVNYPVG-----KPL	832
Am-Nox5	EFD-----SISHSLNYTVG-----KPL	734
Dm-Nox5	PLEDQTQTGSPSRKSILRRPTFLRSLASINNRTGGGGGGSTGSSTTNSGGKVTLDAGVM	883
Dd-NoxC	-----DGSNFIINNNDIDQIDLEIGLKP	928
Mg-NoxC	-----GQEVDI	534
Fg-NoxC	-----GESEI	456
Cc-NoxD	-----AVTDSL	323
Py-NoxD	-----TDPTQV	315
Xt-Duox1	-----YP	1315
Xt-Duox2	-----YP	1368
Gg-Duox	-----LP	1254
Tr-Duox	-----GRTEASPLMSMSPSAAVSITHALFPP	1311
Tn-Duox	-----LGAFP-	1437
O1-Duox	-----LGSYP-	1363
Dr-Duox	-----SEDSQ	1314
Mm-Duox2	-----CARYP	1328
Rn-Duox2	-----SARYP	1328
Hs-Duox2	-----CAGYP	1359
Cf-Duox2	-----CARYP	1111
Hs-Duox1	-----CARYP	1362
Cf-Duox1	-----CAKYP	1363

Rn-Duox1	-----	CARYP	1358
Mm-Duox1	-----	CARYP	1362
Ci-DuoxA	-----	YP	1386
Ci-DuoxC	-----	YP	1251
Ci-DuoxD	-----	YP	1325
Sp-Duox	-----	LP	1482
Dm-Duox	-----	QP	1282
Ag-Duox	-----	QP	1283
Am-Duox	-----	HP	1289
Ci-DuoxB	-----	LP	1305
Ce-Duox1	-----	FP	1304
Ce-Duox2	-----	FP	1310

NADPH1

Hs-Nox1	RIEVDGPFGTASEDFVQYEVAVLVGAGIGVTPFASILKSIWYKFCADHNLK-----	429
Cf-Nox1	RIEVDGPFGTSEDVFQYEVVVLVAGIGVTPFASILKSIWYKFRHEDHNLK-----	429
Mm-Nox1	RIEVDGPFGTSEDVFQYEVAVLVGAGIGVTPFASILKSIWYKFRADNKLK-----	428
Rn-Nox1	RIEVDGPFGTSEDVFQYEVAVLVGAGIGVTPFASFLKSIWYKQRAHNKLK-----	428
Gg-Nox1	RIKVDGPFGTASEDFVLYEVAVLVGAGIGVTPFASILKSIWYRFQNDQTLK-----	430
Xt-Nox1	RLEVDGPFGTASEDFVQYEVSMVLVAGIGVTPFASILKSIWYKFRDDQRLK-----	430
Tn-Nox1	KMGVDGPFGTASEDFDYEVSMVLVAGIGVTPFASILKSIWYKFKESNPCLR-----	427
Tr-Nox1	KMGVDGPFGTASEDFDYEVSMVLVAGIGVTPFASILKSIWYKFKESNPCLR-----	425
Ol-Nox1	KMGVDGPFGTASEDFDYEVSMVLVAGIGVTPFASIMKSIWYKFKECDPKLR-----	430
Dr-Nox1	RMGVDGPFGTASEDFHYEVSMVLVAGIGVTPFASILKSIWYKFKDSDPKLR-----	441
Mm-Nox2	KIAVDGPFGTASEDFVSYEVVMLVAGIGVTPFASILKSVWYKYCDNATSLK-----	435
Rn-Nox2	KIAVDGPFGTASEDFVSYEVVMLVAGIGVTPFASILKSVWYKYCDNATSLR-----	435
Hs-Nox2	KIAVDGPFGTASEDFVSYEVVMLVAGIGVTPFASILKSVWYKYCANNATNLK-----	435
Cf-Nox2	KIAVDGPFGTASEDFVSYEVVMLVAGIGVTPFASILKSVWYKYCANNATNLR-----	435
Gg-Nox2	KIAVDGPFGTASEDFVSYETVMLVAGIGVTPFASVLSVWYKYCHDATNLK-----	435
Xt-Nox2	KIAVDGPFGTASEDFVSYEVAVLVGAGIGVTPFASVLSVWYRYVNDASTLR-----	435
Tn-Nox2	KVAIDGPFGTASEDFVRYEVVMLVAGIGVTPFASILKSVWYKHIQKNQEVF-----	433
Tr-Nox2	KVAIDGPFGTASEDFVRYEVVMLVAGIGVTPFASILKSVWYKHIQNNQEVF-----	433
Ol-Nox2	KVAIDGPFGTASEDFVRYEVVMLVAGIGVTPFASILKSVWYKHIQNNQEVF-----	434
Dr-Nox2	KMAVDGPFGTASEDFVRYEAVMLVAGIGVTPFASVLSVWYKHYQENQNVF-----	433
Hs-Nox3	RLAVDGPFGTALTDVFHYVPCVCAAGIGVTPFAALLKSIWYKCEAQTPLK-----	433
Cf-Nox3	RLAVDGPFGTTLTDVFHYVPSVCAAGIGVTPFASLLKSIWYKC-ESQTQLK-----	432
Mm-Nox3	RLAVDGPFGSLADVFHYVPSVCIATGIGVTPFASLLKSVWYKCCESQSLPE-----	433
Rn-Nox3	RLAVDGPFGSLADVFHYVPSVCIATGIGVTPFASLLKSVWYKCCESQSLPG-----	433
Gg-Nox3	RLVVDGPGYGSATTDVFHYGVSVCAAGIGVTPFASILKSIWYKSCNPNTVLV-----	432
Ci-Nox2	RLAIDGPFGTASEDFVFNYPVAICVSGGIGVTPFASLLKSVWYKLNPEHEMV-----	448
Sp-Nox2A	RVAVDGPFGTASIDIFKYQVAICVAGGIGVTPFASILKSIWLKSVNNSASLK-----	446
Sp-Nox2B	RVQVDGPFGTSTCIDFDYDVVMCVSAGIGVTPYASTLKSIWISSRQNFCTLH-----	420
Mm-Nox4	KLYIDGPFPGSPFEESLNVEVSLCVAGGIGVTPFASILNTLLDD---WKPYKL-----	454
Rn-Nox4	KLYIDGPFPGSPFEESLNVEVSLCVAGGIGVTPFASILNTLLDD---WKPYKL-----	454
Hs-Nox4	KLYIDGPFPGSPFEESLNVEVSLCVAGGIGVTPFASILNTLLDD---WKPYKL-----	454
Cf-Nox4	KLYIDGPFPGSPFEESLNVEVSLCVAGGIGVTPFASILNTLLDD---WKPYKL-----	460
Gg-Nox4	KLYVDGPFPGSPFEESLNVEVSLCVAGGIGVTPFASVNLALLDG---WKCYKL-----	419
Xt-Nox4	KIYVDGPFPGSPSEEVFNYSLSLCIAGGIGVTPFASVNLRLDLS---WDGYKL-----	447
Ol-Nox4	TLYVDGPFPGSPSEEVFNYSLSLCIAGGIGVTPFACVLNALLIPSE---RWQSFRL-----	434
Tr-Nox4	KIYVDGPFPGSPSEEVFNYSLSLCVAGGIGVTPFACMLHTLLDRG---WTHFRL-----	434
Ci-Nox4	ILCVEGPTGGAMEDIFKYKISMCVAGGIGVTPYASVNLALLKDEDLFSRMKL-----	683
Ag-Nox	EFLLDGPPYPSVMSNMLDCKRILFVAGVGTIPFVTIMRLLLS---NVDQP-----	429
Pa-Nox4	ALRIDGPGYGAEDVFENEIAVLIGTGIGVTPWASILKNIWHLRNGPNPPTR-----	402

Mg-NoxA	MLRIDGPGYGAEDVFENEIAVLIGTGIGVTPWASILKNIWHLRNGPNPTR-----	428
Fg-NoxA	ALRIDGPGYGAEDVFENEIAVLIGTGIGVTPWAAAILKNIWHLRNSPNPPRR-----	405
An-NoxA	KLRVDGPGYGAEDVFENEIAVLIGTGIGVTPWASILKNIWHLRASPDPPIRR-----	400
Pa-NoxB	RVYIDGPFPGSASEDFVKYEISVLCGAGIGVTPFASILKSIWYRMNYPQKTR-----	449
Fg-NoxB	RVYVDGPFPGSASEDFVKYEVSVLVGAGIGVTPFASILKSIWYRMNYPQKTR-----	440
Mg-NoxB	RVYVDGPFPGSASEDFVKYEAIVLCGAGIGVTPFASILKSIWYRMNYPQKTR-----	452
Dd-NoxA	ILRIDGPFGAASEEVFKYKQVILVAGIGVTPFASILKHIKYQMARTYNTTP-----	387
Dd-NoxB	ILKIDGPFGAENFFKYRNLVIGAGIGVTPFSSILRHLKNQNDKQTNADENHL-----	569
At-rbohC	KVLIDGPGYGAQDYKKEVLLVGLGIGATPMISIVKDIVNNIKAKEQAQLNRME----	753
At-rbohG	KIMIDGPGYGAQDYKKEVLLVGLGIGATPMISIKDIINNTETKEQ--LSQME----	697
At-rbohA	RILIDGPGYGAQDYKKEVLLVGLGIGATPMISIVSDIINNKGVEEGSNRRQSP----	746
At-rbohB	RLRIDGPGYGAQDYKRYDVLLVGLGIGATPLISIIIRDVLNLIKQKQ--SIERG----	696
At-rbohD	KVLIDGPGYGAQDYKRYDVLLVGLGIGATPMISILKDIINNMGKPRDRSDIENN----	774
At-rbohF	KLLIDGPGYGAQDYKRYDVLLVGLGIGATPFISILKDLLNIVKMEEHADSI-----	783
At-rbohI	ELLIDGPGYGAQDHWKYDVLLVGLGIGATPFVILRDLLNIIKQQEQAEICISGSCSN	776
At-rbohE	KLLVDGPGYGAQDYRSYDVLLVGLGIGATPFISILKDLLNNSRDEQTDNEFSRSDFSW	768
At-rbohH	KIFIKGPGYGAQNYKQFDILLVGLGIGATPFISILKMLNHLKPGIPRSGQKQYEG---	729
At-rbohJ	RIFIKGPGYGAQSYKQFDILLVGLGIGATPFISILKMLNHLKPGIPKTGQKQYEG---	738
Hs-Nox5	KCYIDGPGYGTPTTRIFASEHAVLIGAGIGITPFASILQSIMYRHQKRKHCTPCSQHS---	592
Cf-Nox5	KCYIDGPGYGTPTTRIFASEHAVLIGAGIGITPFASILQSIMYR---HQKRKNICPS----	615
Bt-Nox5	KCYIDGPGYGTPTTRIFASEHAVLIGAGIGITPFASILQSIMYR---HQKRKHICPN----	623
Md-Nox5	KCYLDGPGYGTPTTRIFASEHAVLIGAGIGITPFASILQSIMYR---HQKRKHICPN----	597
Xt-Nox5	YCYIDGPGYGTPTTRIFSDHAVLIGAGIGITPFASILQSIMYR---YMRKQNCPS-----	611
Tr-Nox5	QCYVDGPGYGTPTTRIFASEHAILIGAGIGITPFASILQSIMYK---YRRKQNCPN----	724
Tn-Nox5	LRRWD---YGTPTTRIFASEHAILIGAGIGITPFASILQSIMYK---YRRKQNCPN----	484
Gg-Nox5	QCYIDGPGYGTPTTRIFTSEHAVLIGAGIGITPFASILQSIMXQVGPYRQRKQSCPS----	791
O1-Nox5	KCYVDGPGYGTPTTRIFTSEHAVLIGAGIGITPFASILQSIMYRRLRKQNCPCSCNFS----	606
Dr-Nox5	KCYVDGPFGTPTTRIFASEHAILIGAGIGITPFASILQSIMCRYMRKQNCPCNSYS----	487
Sp-Nox5A	QVFDGPGYGTATRGIFQAEHAILVAGIGVTPFASILQSIMHRYRVGRQTCPIQHT----	678
Sp-Nox5B	EVILDGPGYGAQHIMEAEHAVLIGAGIGITPFASILQSIMERYKAARKHCPCNCHT----	767
Ag-Nox5	EIYIDGPGYAPSSHIFQAQHAILIATGIGVTPFASILQSIMHRYWKARHCCPRCSYE---	889
Am-Nox5	EIFLDGPGYAPSSHIFQAQHAVLIATGIGVTPFASILQSIMHRYWKARHTCPKCKFS---	791
Dm-Nox5	EIFIDGPGYAPSSHIFGAQHAVLIGTGIGVTPFASILQSIMHRYWKARHSCPRCQFE---	940
Dd-NoxC	RINIDGPFSSSQYALKQKQVILVAGIGVSPMASLLKDISLKKQRLQLLNQDQIALEQ	988
Mg-NoxC	EIGINGPFGYGAQRFYDFNHTILVAGIGLTPFSGILADLQAKEDRLHGGPTQKLQEQAE	594
Fg-NoxC	EVGINGPFGYGAQRFYDFNHSIIIGAGIGVTPFSGILADLQYNDLHDGPGNHEVDHHR-	515
Cc-NoxD	QVNIRGPGYGAQHVGLYERVVLISSGGIGSTPFTSICKDLHHRKVKEN-----	371
Py-NoxD	EIKVRGPGYGAQHVGQFENVVLISSGGIGSTPFASVVKSAHN--WMAAS-----	362
Xt-Duox1	KLYLDGPFGEHGEWKNKFEVSVLVGGGIGVTPFASILKDLVFKSSVNSRIHCK-----	1368
Xt-Duox2	KIYLDGPFGEHGEWKNKFEVSVLVGGGIGVTPFASILKDLVFKSSVNSKIACK-----	1421
Gg-Duox	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSINSKLMCK-----	1307
Tr-Duox	KLYLDGPFGEHGEWDDYEVSILVGGGIGVTPFASILKDLVFKSSAKSKIRCK-----	1364
Tn-Duox	--KADGPFGEHGEWDDYEVSILVGGGIGVTPFTSILKDLVFKSSMKSRIKRCPTVFF---	1492
O1-Duox	KLYLDGPFGEHGEWVDFEVSILVGGGIGVTPFASILKDLVFKSSIKSKFMCK-----	1416
Dr-Duox	KLYLDGPFGEHGEWTDFEVSILVAGIGVTPFASILKDLVFKSSVVKFKFHCK-----	1367
Mm-Duox2	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSMGSQMLC-----	1380
Rn-Duox2	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSMGAQMLC-----	1380
Hs-Duox2	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSLSGSQMLC-----	1411
Cf-Duox2	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSLSGSQMLC-----	1163
Hs-Duox1	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSVSCQVFC-----	1414
Cf-Duox1	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSVSCQVFC-----	1415
Rn-Duox1	KLYLDGPFGEHGEWHKFEVSVLVAGIGVTPFASILKDLVFKSSVSCQVFC-----	1410
Mm-Duox1	KLYLDGPFGEHGEWHKFEVSVLVGGGIGVTPFASILKDLVFKSSVSCQVFC-----	1414
Ci-DuoxA	KLYLDGPFGEHGDWYKYDVSVLVGGGIGVTPFASILKDLVSVAQSG--VKIQC-----	1438
Ci-DuoxC	KLFLDGPFGEHGDWYKYEVSVLVGGGIGVTPFASILKDLVNSRSQSG--VAITC-----	1303

Ci-DuoxD	KLYVDGPFGEHQDWYKYEVAVLVGGGIGVTPFASILKDLVNKSTVG--VGIPC-----	1377
Sp-Duox	KLFLDGPYGEHQDWYQYEVAVLVGGGIGVTPFASILKDIVNKSTIG--ARVTC-----	1534
Dm-Duox	KIRIEGPFGGGNQDWYKFEVAVMVGGGIGVTPYASILNDLVFGTSTNRYSGVAC-----	1336
Ag-Duox	KIRIEGPFGGGNQDWYKFEVAVMVGGGIGVTPYASILNDLVFGTSTNRYSGVAC-----	1337
Am-Duox	KIRIEGPFGGGNQDWYKFEVAVMVGGGIGVTPYASMLNDLVFGTSTNRYSGVAC-----	1343
Ci-DuoxB	NLYLDGPFGEHQDWYKYEVSVLVAGIGVTPFASILKDIVNRTSTKKGSHIPC-----	1359
Ce-Duox1	LIHMKGPYGDGNQEWMDYEVAIMVGAGIGVTPYASTLVDLVQRTSSDSFHRVRC-----	1358
Ce-Duox2	LIHMKGPYGDGNQEWMNYEVAIMVGAGIGVTPYASTLVDLVQKTSSDSFHRVRC-----	1364

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Hs-Nox1	-----
Cf-Nox1	-----
Mm-Nox1	-----
Rn-Nox1	-----
Gg-Nox1	-----
Xt-Nox1	-----
Tn-Nox1	-----
Tr-Nox1	-----
O1-Nox1	-----
Dr-Nox1	-----
Mm-Nox2	-----
Rn-Nox2	-----
Hs-Nox2	-----
Cf-Nox2	-----
Gg-Nox2	-----
Xt-Nox2	-----
Tn-Nox2	-----
Tr-Nox2	-----
O1-Nox2	-----
Dr-Nox2	-----
Hs-Nox3	-----
Cf-Nox3	-----
Mm-Nox3	-----
Rn-Nox3	-----
Gg-Nox3	-----
Ci-Nox2	-----
Sp-Nox2A	-----
Sp-Nox2B	-----
Mm-Nox4	-----
Rn-Nox4	-----
Hs-Nox4	-----
Cf-Nox4	-----
Gg-Nox4	-----
Xt-Nox4	-----
O1-Nox4	-----
Tr-Nox4	-----
Ci-Nox4	-----
Ag-Nox	-----
Pa-NoxA	-----
Mg-NoxA	-----
Fg-NoxA	-----
An-NoxA	-----
Pa-NoxB	-----

Fg-NoxB	-----	
Mg-NoxB	-----	
Dd-NoxA	-----	
Dd-NoxB	-----	
At-rbohC	-----NGTSEPQRSKK-----	764
At-rbohG	-----KGSPQEQGNK-----	708
At-rbohA	-----IHNMVTPPVSPSRKS-----	761
At-rbohB	-----TNQHIK-----	702
At-rbohD	-----NSNNNS-----	780
At-rbohF	-----DFSRSEYSTGSNGDTPRK-----	803
At-rbohI	SNIS-----SDHSFSLNSEAASRIPQTR-----	801
At-rbohE	N-----SCTSSYTTATPTSTHG-----	785
At-rbohH	-----SVGGESIGGDSVSGG-----	744
At-rbohJ	-----SVGGESLGGSSVYGGSSVNGG-----	759
Hs-Nox5	-----WIEGVQDN-----	600
Cf-Nox5	-----	
Bt-Nox5	-----	
Md-Nox5	-----	
Xt-Nox5	-----	
Tr-Nox5	-----	
Tn-Nox5	-----	
Gg-Nox5	-----	
O1-Nox5	-----WCENLKSD-----	615
Dr-Nox5	-----WCETIKDNE-----	496
Sp-Nox5A	-----WLGNIPTDM-----	687
Sp-Nox5B	-----WVTD-SSSI-----	775
Ag-Nox5	-----WSSEIPPTI-----	898
Am-Nox5	-----WASEIPPTV-----	800
Dm-Nox5	-----WASEIPKSV-----	949
Dd-NoxC	SKNE-----	992
Mg-NoxC	KGGDVRGSTSADAPDGRIGTSREAEAMPQRTDVMQAPTSGDQSNNTTLQETADADSDSA	654
Fg-NoxC	-----HDSEATAIPQAARRSDSSSSDEATTSDNVPETPTRQGSGVGPLINKEKQPQADKA	570
Cc-NoxD	----- (TM7-TM10) -----	
Py-NoxD	----- (TM7-TM10) -----	
Xt-Duox1	-----	
Xt-Duox2	-----	
Gg-Duox	-----	
Tr-Duox	-----	
Tn-Duox	-----	
O1-Duox	-----	
Dr-Duox	-----	
Mm-Duox2	-----	
Rn-Duox2	-----	
Hs-Duox2	-----	
Cf-Duox2	-----	
Hs-Duox1	-----	
Cf-Duox1	-----	
Rn-Duox1	-----	
Mm-Duox1	-----	
Ci-DuoxA	-----	
Ci-DuoxC	-----	
Ci-DuoxD	-----	
Sp-Duox	-----	
Dm-Duox	-----	
Ag-Duox	-----	

Am-Duox -----
 Ci-DuoxB -----
 Ce-Duox1 -----
 Ce-Duox2 -----

NADPH2

Hs-Nox1 -----TKKIYFYWICRETGAFSWFNLLTSLEQEMEELGK-----VG 466
 Cf-Nox1 -----TQTIYFYWICRETGAFWFNDLLASLECEMEELGK-----VD 466
 Mm-Nox1 -----TQKIYFYWICRETGAFWFNLLNSLEQEMEELGK-----MD 465
 Rn-Nox1 -----TQKIYFYWICRETGAFWFNLLNSLEQEMDELGK-----PD 465
 Gg-Nox1 -----TKKIYFYWLCRDTGAFWFNDLLASLEQKMAESGK-----AD 467
 Xt-Nox1 -----TKKIYFYWICRETGSFAWFADLLRSLEQEMICSGK-----DG 467
 Tn-Nox1 -----TRKIYFYWLCRETHAFEFWFADLLQVLEKEMDERGM-----GD 464
 Tr-Nox1 -----TRKIYFYWLCRETHAFEFWFADLLQVLEKEMDERGM-----VD 462
 Ol-Nox1 -----TRKIYFYWLCRETNAFEWFADLLQVLEKEMEERNL-----GD 467
 Dr-Nox1 -----TKRIYFYWLCRETHAFEFWFADLLQVLEREMEERGM-----RD 478
 Mm-Nox2 -----LKKIYFYWLCRDTHAFEFWFADLLQLETTQMQRNN-----AN 472
 Rn-Nox2 -----LKKIYFYWLCRDTHAFE--FADLLQLETTQMQRNN-----AN 471
 Hs-Nox2 -----LKKIYFYWLCRDTHAFEFWFADLLQLESQMQRNN-----AG 472
 Cf-Nox2 -----LKKIYFYWLCRDTHAFEFWFADLLQLETTQMQRNN-----AG 472
 Gg-Nox2 -----LKKIYFYWLCRDTHAFEFWFADLLQSLETTQMQRNN-----AE 472
 Xt-Nox2 -----LKKIYFYWLCRDTHAFEFWFADLLQSLETTQMQRDN-----AN 472
 Tn-Nox2 -----TKKIYFYWLCRPETEAFEFWFADLLQSLEGGMADKGM-----TD 470
 Tr-Nox2 -----TKKIYFYWLCRPETEAFEFWFADLLQSLEGGMTEKGM-----TD 470
 Ol-Nox2 -----TKKVRYIRLLRMSSSYLLFTLMVQKKIIRAWDRHR-----GN 471
 Dr-Nox2 -----TKKIYFYWLCRPETAFAFEWFADLLQSLEKQMSDKNM-----SD 470
 Hs-Nox3 -----LSKVYFYWICRDARAFEFWFADLLSLETRMSEQGK-----TH 470
 Cf-Nox3 -----LSKVYFYWICRDPKAFEFWFADLLSLETLMSERGK-----AH 469
 Mm-Nox3 -----LSKVYFYWICRDAGAFEFWFADLLSLETRMSEQGK-----AH 470
 Rn-Nox3 -----LSKVYFYWICRDAAFEFWFADLLSLETTMSEQGK-----AH 470
 Gg-Nox3 -----LQKVYFYWICRDPSTFEWFADLLFLETKMVEKGM-----ND 469
 Ci-Nox2 -----LKKVYFFWICPETHAFEFWFGDLLKYLERQLTEIGR-----QD 485
 Sp-Nox2A -----LKKVYFFWICPDTNAFEWFSTLLDSIDTHFTQGGK-----PD 483
 Sp-Nox2B -----LKRMYFYWICRDTHAFEFWFVLLSSELEILRQIDK-----EH 457
 Mm-Nox4 -----RRLYFIWVCRDIQSFQWFADLLCVLHNKFWQENR-----PD 490
 Rn-Nox4 -----RRLYFIWVCRDIQSFQWFADLLYVHLHNKFWQENR-----PD 490
 Hs-Nox4 -----RRLYFIWVCRDIQSFQWFADLLCMLHNKFWQENR-----PD 490
 Cf-Nox4 -----RRLYFIWVCRDIQSFQWFADLLCVLHNKFWQENR-----PD 496
 Gg-Nox4 -----RRLYFIWVCRDVSFRWFADLLCMLHNKLWQENR-----PD 455
 Xt-Nox4 -----QRLYFVWVCRDIHSFLWFADLLCCLLHRKLWQENR-----PD 483
 Ol-Nox4 -----QRLYFVWVCRELQSFYWFAELLCALHEKLWQDNR-----PD 470
 Tr-Nox4 -----QRLYFVWVWVSELQSFYWFAELLCSVHHKLWQENR-----PD 470
 Ci-Nox4 -----KRLYLWVWVWVSELQSFYWFAELLCSVHHKLWQENR-----PD 719
 Ag-Nox -----ARVHLVWIARNLETFWFSDIARLQEKFWQNK-----PD 465
 Pa-NoxA -----LRRVEFIWVCKDTSFQWFADLLSLEEQSAAARVPGS--SGVE 445
 Mg-NoxA -----LRRVEFLWVCKDTSFQWFADLLSLEEQSAAARVPGS--NGVE 471
 Fg-NoxA -----LRRVEFIWVCKDTSFQWFADLLSLEEQSAAARVPGS--TGVE 448
 An-NoxA -----LRRVEFIWVCKDTSFQWFADLLSLEEQSAAARVPGS--S--E 441
 Pa-NoxB -----LSKVYFFWICRDFGSFEWFRSLLLAIEAQDNDNR----- 483
 Fg-NoxB -----LSKVYFFWICRDFGSFEWFRSLLLAIEAQDNDNR----- 474
 Mg-NoxB -----LAKVYFFWICRDFGSFEWFRSLLLAIEAQDNDNR----- 486
 Dd-NoxA -----LIDKVHFYWICRDRNSFEWFRSLLLAIEAQDNDNR----- 421
 Dd-NoxB -----KINKIYFIWISRQKNSFQWFTDILAELENDERIDS----- 604

At-rbohC	-----ESFRTRRAYFYVWVTRREQGSFDWFKNIMNEVAERD-----	ANR	801
At-rbohG	-----ETFKTRRAYFYVWVTKQGTDFWFKNIMNEIAERD-----	KSK	745
At-rbohA	-----ETFRTKRAYFYVWVTRREQGSFDWFKNVMDEVTTETD-----	RKN	798
At-rbohB	-----NYVATKRAYFYVWVTRREQGSLEWVSEVMNEVAEYD-----	SEG	739
At-rbohD	-----KGFKTRKAYFYVWVTRREQGSFEWFKGIMDEISELD-----	EEG	817
At-rbohF	-----RILKTTNAYFYVWVTRREQGSFDWFKGMNEVAELD-----	QRG	840
At-rbohI	-----KTLNNTKNAYFYVWVTRREQGSFDWFKEMNEIADSD-----	RKG	838
At-rbohE	-----GKKKAVKAHFYVWVTRREPGSVFVFRGMVEEISDMD-----	CRG	822
At-rbohH	-----GGKKFPQRAYFFWVWVTRREQASFDWFKGMDDIAEYD-----	KTH	782
At-rbohJ	GSVNGGGSVSGGGRKFPQRAYFYVWVTRREQASFEWFKGMDDIAVYD-----	KTN	808
Hs-Nox5	-----MKLHKVDFIWINRDQRSFEWVFSLLTKLEMDQAEAAQ-----	YGR	640
Cf-Nox5	-CQHSWMSAQDEDMKLHKVDFMWINRDQRSFEWVFSLLTKLEMDQAEIS-----	QEGP	668
Bt-Nox5	-CQHSWMESGQDEDMKLHKVDFIWINRDQRSFEWVFSLLTKLEMDQAEET-----	QVGR	676
Md-Nox5	-CHYSWCEDIRD-DFLIFKVDFIWINRDQKSFVWVFSLLTKLEMDQAEIE-----	HGGH	649
Xt-Nox5	-CQYSWCETLKENEMDLRKVDFIWINRDQKFFVWVFSLLTKLELDQADEEPE-----	ETGR	666
Tr-Nox5	-CNYSWCENLKDSMDMLRKVDFIWINRDQKSFVWVFSLLTKLEMDQADEE-----	PEGR	777
Tn-Nox5	-CNYSWCENLKDSMDMLRKVDFIWINRDQKSFVWVFSLLTKLEMDQADEE-----	PEGR	537
Gg-Nox5	-CETVWDE-----DMALTKVDFIWINRDQHFVFLDLLAALELQEEQD-----	PGGR	839
Ol-Nox5	-----MTLRKVDFIWINRDQKSFVWVFSLLTKLEMDQADEEP-----	EGR	655
Dr-Nox5	-----MKLRKVDFIWINRDQKSFVWVFSLLTKLEMDQADEEP-----	EGR	536
Sp-Nox5A	-----MRLKKVDFIWINRNQNAFEWVFSLLTQLEMEQAQEP-----	FDR	726
Sp-Nox5B	-----LTKTKVDFVWINRDQHSFEWFISLISAIIELEQAQIPA-----	ADR	815
Ag-Nox5	-----MNLKRVDFVWINRDQRSFEWVFNLLSQLEIEQAELGSA-----	MER	939
Am-Nox5	-----MHLKRVDFVWINRDQKSFVWVFNLLSQLEMEQAELGDA-----	MER	841
Dm-Nox5	-----MNLKRVDFVWINRDQRSFEWVFNLLSQLEIEQAELGGA-----	MER	990
Dd-NoxC	-----ITTKFGLGNLEKVHFFWLNDRDQHSFQWFEDLLIDISTNGNSNLP-----		1036
Mg-NoxC	SSISRPFSSSFASDYRRVDFHWMVRDRNHLLWISELLNTVSRSQAWHHRHDAPGEYHL		714
Fg-NoxC	G-----SFAEDYRRVDFHWMVRERNYLLWLSDLLNDVSMQDWHREHED-----	KPHL	618
Cc-NoxD	-----VDFVWVTPHENDDEWLRSELEPLADG-----	T	703
Py-NoxD	-----LDFVWVTPSPEHDAWLVEELLPIRS-----	G	805
Xt-Duox1	-----KVYFIWVTRTQRQFEWLTDIIREVEKNDKQ-----	E	1399
Xt-Duox2	-----KIYFIWVTRTQRHFVWFADIIREVEENDKC-----	D	1452
Gg-Duox	-----KIYFIWVTRTQRQFEWLADIIREVEETDRN-----	E	1338
Tr-Duox	-----KVYFIWVTRTQRQFEWVSDIVREVEEMDTQ-----	Q	1395
Tn-Duox	-----PNILKVYFIWVTRTQRQFEWVSDIVREVEEMDTQ-----	E	1527
Ol-Duox	-----KVYFIWVTRTQRQFEWVSDIVREVEEMDTQ-----	E	1447
Dr-Duox	-----KVYFLWVTRTQRQFEWVSDIIREVEDMDMQ-----	D	1398
Mm-Duox2	-----KKIYFIWVTRTQRQFEWLADIIREVEENDRQ-----	D	1412
Rn-Duox2	-----KKIYFIWVTRTQRQFEWLADIIREVEENDSR-----	D	1412
Hs-Duox2	-----KKIYFIWVTRTQRQFEWLADIIQEVEENDHQ-----	D	1443
Cf-Duox2	-----KKIYFIWVTRTQRQFEWLADIIREVEENDHQ-----	D	1195
Hs-Duox1	-----KKIYFIWVTRTQRQFEWLADIIREVEENDHQ-----	D	1446
Cf-Duox1	-----KKIYFIWVTRTQRQFEWLADIIREVEENDCQ-----	D	1447
Rn-Duox1	-----KKIYFIWVTRTQRQFEWLADIIREVEENDSR-----	D	1442
Mm-Duox1	-----KKIYFIWVTRTQRQFEWLADIIREVEENDRQ-----	D	1446
Ci-DuoxA	-----KKVYFMWITRDQKQYEWLTDIIQEVESKDAS-----	D	1470
Ci-DuoxC	-----KAVYFIWVTRDQKQYEWLTDIIQEVEGKDKK-----	Q	1335
Ci-DuoxD	-----KSVYFLWVARDQRQFEWLLDIIIEETEKNDAL-----	G	1409
Sp-Duox	-----KKVYFIWVTRTQKHYEWLTDIIRDVEDNDTN-----	D	1566
Dm-Duox	-----KKVYFLWICPSHKHFVWFIDVLRDVEKKDVT-----	N	1368
Ag-Duox	-----KKVYFLWICPSHKHFVWFIDVLRDVEKKDVT-----	N	1369
Am-Duox	-----KKVYFLWICPSHKHFVWFIDVLRDVERKDVT-----	D	1375
Ci-DuoxB	-----KKIYFIWVTRTQRHFVWLTDIIRELEETAGG-----	D	1391
Ce-Duox1	-----RKVYFLWVCSTHKNYEFVVDLKNVEDQARS-----	G	1390
Ce-Duox2	-----RKVYFLWVCSSHKNFVWVDMKNVENQAKP-----	G	1396

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NADPH3

Hs-Nox1	FLNYRLFLT-GWDSNIVGHAALNF-----DKA-TDIVTGLKQK---TSFGRPMWDNEF	514
Cf-Nox1	FLNYRLFLT-GWDSNIASHATLNF-----DKA-TDILTGLKQK---TSFGRPMWDNEF	514
Mm-Nox1	FLNYRLFLT-GWDSNIAGHAALNF-----DRA-TDILTGLKQK---TSFGRPMWDNEF	513
Rn-Nox1	FLNYRLFLT-GWDSNIAGHAALNF-----DRA-TDVLTLGLKQK---TSFGRPMWDNEF	513
Gg-Nox1	FLTYRLFLT-GWDSIANNAAALHF-----DTV-TDVTGLRQK---TIFGRPRWDTEF	515
Xt-Nox1	FLNYRLFLT-SWDSKIAGHVVIDF-----DHA-TDVTGLRQK---TSYGRPIWENEF	515
Tn-Nox1	FLTYKLYLT-KWDQSHADHIMVHS-----DQD-IDVVTGLRQK---TYYGRPAWDKEF	512
Tr-Nox1	FLTYKLYLT-KWDDGHVNHKIVYP-----DTD-VDMVTGLRQQ---TNYGRPNWDKEF	510
O1-Nox1	FLTYKLFLT-GWDQGHDTQVIVHF-----DED-TDVVTGLKQK---THYGRPNWDKEF	515
Dr-Nox1	FLTYKLYLT-KWDQSHADHAMVHF-----DKD-TDITGLKQK---THYGRPNWDKEF	526
Mm-Nox2	FLSYNIYLT-GWDESQANHFVAVHH-----DEE-KDVIITGLKQK---TLYGRPNWDNEF	520
Rn-Nox2	FLSYNIYLT-GWDESQANHFVAVHH-----DEE-KDVIITGLKQK---TLYGRPNWDNEF	519
Hs-Nox2	FLSYNIYLT-GWDESQANHFVAVHH-----DEE-KDVIITGLKQK---TLYGRPNWDNEF	520
Cf-Nox2	FLSYNIYLT-GWDESQANHFVAVHH-----DEE-KDVIITGLKQK---TLYGRPNWDNEF	520
Gg-Nox2	FLSYNIYLT-GWDETQATHFVMHH-----EEE-KDVIITGLKQK---TLYGRPNWENEF	520
Xt-Nox2	FLVYNIYLT-GWDESQATAFSLHH-----DQE-KDVIITGLKQK---TLYGRPNWENEF	520
Tn-Nox2	FLSYNIYLT-RWKEKEAAHFRVHH-----EAE-NDPITGLKQK---TLYGKPNWDFEF	518
Tr-Nox2	FLSYNIYLT-RWKEKEAAHFRVHH-----EAE-NDPITGLKQK---TLYGKPNWDFEF	518
O1-Nox2	WLATPVARF-GQLKNQAHLRVVHH-----EDE-NDPITGLKQK---TLYGKPNWDFEF	519
Dr-Nox2	FLSYNIYLT-RWKDAEAAHLRVQY-----EAE-DDPITGLKQK---TRYGKPNWDFEF	518
Hs-Nox3	FLSYHIFLT-GWDENQALHIALHW-----DEN-TDVIITGLKQK---TFYGRPNWDFEF	518
Cf-Nox3	FLSYHIFLT-SWDENQAVHIALHW-----DEN-TDVVTGLKQK---TFYGRPNWDFEF	517
Mm-Nox3	LLSYHIYLT-GWDENQAIHIALHW-----DES-LDVITGLKQK---AFYGRPNWDFEF	518
Rn-Nox3	LLSYHIYLT-GWDEYQAIHIALHW-----DES-LDVITGLKQK---TFYGRPNWDFEF	518
Gg-Nox3	FLSYHIFLT-GWDENQATHIALHY-----DEK-MDVITGLRQK---TFYGRPNWDFEF	517
Ci-Nox2	LIEYHIYLT-TRGWDHKQAKAIYAHE-----EDT-HDVITGLEQK---TNYGRPNWDFEF	534
Sp-Nox2A	FLKYIYLSRGWNNTQAKNIYLQE-----EQE-IDAITGLRQK---THYGRPKWDSNF	532
Sp-Nox2B	LLSYSIYLT-TRGWDYTAQNIYLMQE-----DRE-IDAVTGLRQK---THYGRPKWDSNF	506
Mm-Nox4	FVNIQLYLSQ--TDGIQK-----II-GEKYHTLNSR---LFIGRPRWKLFF	530
Rn-Nox4	FVNIQLYLSQ--TDGIQK-----II-GEKYHTLNSR---LFIGRPRWKLFF	530
Hs-Nox4	YVNIQLYLSQ--TDGIQK-----II-GEKYHALNSR---LFIGRPRWKLFF	530
Cf-Nox4	YVNIQLYLSQ--TDGIQK-----II-GEKYQALNSR---LFIGRPRWKLFF	536
Gg-Nox4	YINIQLYLSQ--TDGIQK-----II-GEKYQALNSR---LLIGRPRWKLFF	495
Xt-Nox4	YLNQLYLSQ--TNGIQN-----II-GEKYQALNSR---LSIGRPRWKLFF	523
O1-Nox4	YLNKLYVTQ--KDSLQS-----MS-ELRYRPLAAR---LQVGRPKWKLFF	510
Tr-Nox4	YFNMKLYVSQ--TDSLEN-----MS-AK-YRPLTSR---LLVGRPRWKLFF	509
Ci-Nox4	LLSVRLHITG--SNTLQS-----EE-SGDQLLSDIQGCHVAYGRPDVTQVF	762
Ag-Nox	RFWVKLYWTQNYDEHLLA-----EC-FGDMPSIKSR---MHRGRPNWDFEF	507
Pa-NoxA	FLKIHTYLTQKLDMDTTQNIVLNS-----VGSS-VDPLTELKAR---TNFGRPNFGRIF	495
Mg-NoxA	FLKIHTYLTQKLDMDTTQNIVLNS-----VGAA-LDPLTELKSR---TNFGRPNFAKLF	521
Fg-NoxA	FLKIHTYLTQKLDIDTAQNIVLNS-----VGSQ-MDPLTELQSR---TNFGRPDFPRLF	498
An-NoxA	FLRIHIYLTQRLDQDTTNIYVLS-----VGQE-LDPLTELKSR---TNFGRPDFKRLF	491
Pa-NoxB	-IEIHTYLTAKIKVDDATNIMIND-----ANAD-KDTITGLRSP---TNFGRPNWDMIF	532
Fg-NoxB	-IEIHTYLTAKIKADDATNIMIND-----ANAD-KDTITGLRSP---TNFGRPNWDMIF	523
Mg-NoxB	-IEIHTYLTAKIKADDATNIMIND-----ANAD-KDAITGLRAP---TNFGRPNWDMIF	535
Dd-NoxA	FLEIHPYLTGALSQAQIRVVMYGD-----EE-KDLITGFTTP---TQFGRPKWDFEF	469
Dd-NoxB	ILEIHIFLTGALELDYAKIKN-----AQ-KCHITNLHSK---TLFGRPNFRSIF	650
At-rbohC	VIEMHNYCTSVYEEGDARSALIHMLQSLNHAKNG-VDIVSGTRVM---SHFAKPNWRNVY	857
At-rbohG	VIELHNHCTSVYEEGDVRSALIRMLQSLNYAKNG-LDIVAGTRVM---SHFARPNWKNVY	801
At-rbohA	VIELHNYCTSVYEEGDARSALITMLQSLNHAKHG-VDVVSIGTRVM---SHFARPNWRSVF	854
At-rbohB	MIELHNYCTSVYEEGDARSALITMLQSLHAKSG-IDIVSGTRVR---THFARPNWRSVF	795

At-rbohD I IELHNYCTSVYEEGDARVALIAMLQSLQHAKNG-VDVVSGTRVK---SHFAKPNWRQVY 873
 At-rbohF V IEMHNYLTSVYEEGDARSALITMVQALNHAKNG-VDIVSGTRVR---THFARPNWKKVL 896
 At-rbohI V IEMHNYLTSVYEEGDTRSNLLTMIQTLNHAKNG-VDIFSGTKVR---THFGRPKWKKVL 894
 At-rbohE Q IELHNYLTSVYDEGDARSTLIKVMQALNHAKHG-VDILSGTRVR---THFARPNWKEVF 878
 At-rbohH V IEMHNYLTSMYEAGDARSALIAMVQKLQHAHNG-VDIVSESRH----- 825
 At-rbohJ V IEMHNYLTSMYEAGDARSALIAMVQKLQHAHNG-VDIVSESRIR---THFARPNWRKVF 864
 Hs-Nox5 F LELHMYMTSALGKNDMKAIGLQMALDILLAKKEK-KDSITGLQTR---TQPGRPDWSKVF 696
 Cf-Nox5 F LELHMYMTSALGKNDMKAIGLQMALDILLAKKEK-KDSITGLQTR---TQPGRPDWNKVF 724
 Bt-Nox5 F LELHMYMTSALSKNDIKAIIGLQMALDILLAKKEK-KDSITGLQTR---TQPGRPDWNKVF 732
 Md-Nox5 F LELHMYMTSALSKNDMKAIGLQMALDILLAKKEN-KDSITGLKTR---TQPGRPDWSKVF 705
 Xt-Nox5 F LEMHMYMTSALSKNDMKAIGLQMALDILLAKKEK-KDSITGLRTR---TQPGRPDWNKVF 722
 Tr-Nox5 F LEMHMYMTSALSKNDMKAIGLQMALDILLAKKEK-RDSITGMRTR---TQPGRPDWGKLF 833
 Tn-Nox5 F LEMHMYMTSALSKNDMKAIGLQMALDILLAKKEK-RDSITGLRTR---TQPGRPDWGV- 592
 Gg-Nox5 F LELHLYMTSALGRSDVKAVGLQALDILLAAKEQ-RDSITGLRTR---TQPGRPDWSQVL 895
 Ol-Nox5 F LEMHMYMTSALSKNDMKAIGLQMALDILLAKKEK-KDSITGLRTR---TQPGRPEWGVKVF 711
 Dr-Nox5 F LEMHMYMTSALSKNDMKAIGLQMALDILLAKKEK-RDSITGLRTR---TQPGRPDWAKVF 592
 Sp-Nox5A F LELHMYMTSAMAKNDMKGIGLQMALDIMHKKGH-RDLITGLKTR---TQPGRPDWNKIF 782
 Sp-Nox5B F LDHLYMTSALSPSDMKAIGLHVALDLIHKKKK-RDLITGLKTR---TQAGRPDWEDEV 871
 Ag-Nox5 F LEMHMYITSALQKTDMAVGLQALDILLHEKEK-RDLITGLKTR---TNAGRPNWDKVF 995
 Am-Nox5 F LEMHMYITSALQKSDMKAIVTLQALMDLVHMEK-RDLITGLKTR---TNAGRPNWDKVF 897
 Dm-Nox5 F LDMHMYITSALQRTDMAVGLQALDILLHEKGG-RDLITGLKTR---TNAGRPNWDKVF 1046
 Dd-NoxC K I SINTFNTRVFPKNDVRFVWNLGDKLFKAQG-LDPTTNLPPK---THWGRPNWDTIF 1092
 Mg-NoxC D I RMQTHVTQKRKNVSTHVYRWL----EQHRTPEHPASPITGLINPTQFGRPDFVSI 769
 Fg-NoxC D I RINTHVTAQKKISTHVYRWL----EMHRTDEHPASPLTGLLNPTHFGRPDFLIL 673
 Cc-NoxD E LKLRHYVTR-AKEVD-----MEAGS-EFITS-----SNTGRPEWDAIF 740
 Py-NoxD T VRLHRHITRSAAEVPEP-----WMLDYD-EVPLK-----TTYKRPDWAEIF 845
 Xt-Duox1 L LSVHIYITQLAEKFDLRTTMLYICEQHFQKVLN-QSLMTGLRSV---THFGRPPFAGFF 1455
 Xt-Duox2 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSI---THFGRPPFQFF 1508
 Gg-Duox L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-KSLFTGLRSI---THFGRPPFIPFF 1394
 Tr-Duox L VSVHTYITQVAEKFDLRTTMLYVCERRFQKVVN-RSLFTGLRSV---THFGRPPFSLFF 1451
 Tn-Duox L VSVHTYITQVAEKFDLRTTMLYVCERHFQKVVN-RSLFTGLRSV---THFGRPPFSLFF 1583
 Ol-Duox L VSVHTYITQVAEKFDLRTTMLYVCERHFQKVVN-RSLFTGLRSV---THFGRPPFVSLFF 1503
 Dr-Duox L VSVHIYITQLPEKFDLRTTMLYVCERHFQKVVN-RSLFTGLRSV---THFGRPPFLAFL 1454
 Mm-Duox2 L VSVHIYITQLAEKFDLRTTMLYICERHFQKALN-RSLFTGLRSI---THFGRPPFELFF 1468
 Rn-Duox2 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSV---THFGRPPFELFL 1468
 Hs-Duox2 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSI---THFGRPPFEPFF 1499
 Cf-Duox2 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSI---THFGRPPFEPFF 1251
 Hs-Duox1 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSI---THFGRPPFEPFF 1502
 Cf-Duox1 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSI---THFGRPPFEPFF 1503
 Rn-Duox1 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSV---THFGRPPFEPFF 1498
 Mm-Duox1 L VSVHIYITQLAEKFDLRTTMLYICERHFQKVLN-RSLFTGLRSI---THFGRPPFEPFF 1502
 Ci-DuoxA L LDTHIFITQFPQKFDLRTTMLYICERHFQKQVAG-KSLFTGLRAVT---HFGRPEFKSFF 1526
 Ci-DuoxC I LNTHIFITQFPQKFDLRTKMLYICEENFQKIAG-KSLFTGLRAIT---HFGRPDPPDF 1391
 Ci-DuoxD I LSTHIFITEIPNKFDLRTTMLYVCEQHFQKQVSE-KSMFTGLNAV---HFGRPNPDDL 1465
 Sp-Duox L VSVHIFVTQFFQKFDLRTTMLYICERHFQKISN-RSLFTGLKSI---HFGRPQTSFL 1622
 Dm-Duox V LEIHIFITQFFHKFDLRTTMLYICENHFQRLSK-TSIFTGLKAVN---HFGRPDMSSFL 1424
 Ag-Duox V LEIHIFITQFFHKFDLRTTMLYICENHFQRLSK-TSMFTGLKAVN---HFGRPDMSSFL 1425
 Am-Duox V LEIHIFITQFFHKFDLRTTMLYICENHFQRLSK-KSIFTGLKAIN---HFGRPDMSSFL 1431
 Ci-DuoxB L VSTHIYITQFANKYDLRTTMLYICERYFQKVAN-KSMFTGLKAIT---HFGRPQFEAFL 1447
 Ce-Duox1 I LEHIFVTQFHKFDLRTTMLYICEKHFRATNSGISMFTGLHAKN---HFGRPNFKAFF 1447
 Ce-Duox2 I LEHIFVTQMFHKFDLRTTMLYICEKHFRATNSGISMFTGLHAKN---HFGRPNFKAFF 1453

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Hs-Nox1	STIATSHP-----	KSVVGVFLCGPRTLAKSLRKCCHRY	548
Cf-Nox1	STIANAHP-----	RSVVGVFLCGPQLAKSLSKCCCQYS	548
Mm-Nox1	SRIATAHP-----	KSAVGVFLCGPRTLAKSLRKCQRYS	547
Rn-Nox1	SRIATAHP-----	KSVVGVFLCGPPTLAKSLRKCRRYS	547
Gg-Nox1	SAVATAHP-----	RSVVGVFLCGPEALAKVLRRSCHQHS	549
Xt-Nox1	SKVAEWHP-----	KSTVGVFLCGPQALGKTLKQCCHQYS	549
Tn-Nox1	EQVRKENP-----	TSVVGTFFLCGPEALAEVLEKCKVKYS	546
Tr-Nox1	EQVRKENP-----	TSVVGTFFLCGPEALGEVLAKKCGKYS	544
O1-Nox1	DQVRKENP-----	ASVVGTFFLCGPAALAKVLQKCKAKYS	549
Dr-Nox1	EQVRQENP-----	SSVVGTFFLCGPQALAKDLEKCKVKYS	560
Mm-Nox2	KTIASEHP-----	NTTIGVFLCGPEALAEATLSKQISISNS	554
Rn-Nox2	KTIASQHP-----	NTRIGVFLCGPEALAKTSLKQISISNS	553
Hs-Nox2	KTIASQHP-----	NTRIGVFLCGPEALAEATLSKQISISNS	554
Cf-Nox2	KTIASQHP-----	NTRIGVFLCGPEALAEATLSKQISISNS	554
Gg-Nox2	KTIARQHP-----	GSRIGVFLCGPEGLADTLNKQISISNS	554
Xt-Nox2	KTIANAHT-----	SSRVGVFLCGPESLAETLNKQISANS	554
Tn-Nox2	ASIASQHP-----	RSKVGVFLCGPPKLGQSLKQCLSYS	552
Tr-Nox2	TNIASKHP-----	GSKVGVFLCGPPQLGKSLKQCLSHS	552
O1-Nox2	TNIASTHP-----	GSKVGVFLCGPPMLGKSLEKESISHT	553
Dr-Nox2	SLIASQHP-----	GTKVGVFLCGPTALGKALSQCLSHT	552
Hs-Nox3	KQIAYNHP-----	SSSIGVFFCGPKALSRTLQKMCHLYS	552
Cf-Nox3	RQLAYAHP-----	SSSIGVFFCGPKALSRTLQRMCHLYS	551
Mm-Nox3	KQIAYNHP-----	SSSIGVFFCGSKAMSKTLQKMCRLYS	552
Rn-Nox3	KQIAYNHP-----	SSSIGVFFCGPKAMSKTLQKMCRLYS	552
Gg-Nox3	KQLAENHP-----	SNSIGVFFCGPKNLKILQKMCSSYS	551
Ci-Nox2	SKTARDYP-----	NTHIGVFFCGVAALSAKLHKMSNKHS	568
Sp-Nox2A	KMIAEENPG----RVS-----	SVFFCGPKALSSVLHENANKFT	566
Sp-Nox2B	SYIAEKNP----RVSRI-----	WNATIGVFFCGPKSLSTILHQSCNKHT	546
Mm-Nox4	DEIAKCNRGK-----	TVGVFCCGPSSISKTLHLSNRNN	564
Rn-Nox4	DEIAKCNRGK-----	TVGVFCCGPSSISKTLHLSNRNN	564
Hs-Nox4	DEIAKYNRGK-----	TVGVFCCGPNSLTKLHKLNSQNN	564
Cf-Nox4	DEIAKCNRGK-----	TVGVFCCGPNSISKTLHKLNSRNN	570
Gg-Nox4	DEIAKYNRRK-----	TIGVFFCCGPKMSKILHKLNSSN	529
Xt-Nox4	EEVAKSSRGK-----	TVGVFCCGPKGISKELHKLNSAN	557
O1-Nox4	DEIGKSNKDK-----	RVGVFCCGPKGISRTLHRLNSAK	544
Tr-Nox4	NELGKTNKHK-----	RIGVFFCCGPKAISRTLHRFCNSFQ	543
Ci-Nox4	EEIRTAAYQR-----	STVGVFCCGHRLLVSSVKHHCLKTK	798
Ag-Nox	IDLVTLYPKK-----	SVSVFSCGPKELTKEIRLKCKEYS	541
Pa-NoxA	QSMSEGIQNRTYLNGLEGN-----	MRTTVGVYFCGPSAAARDIKKAAKAAS	541
Mg-NoxA	ASMRDGIIMDRTYLSGLEGS-----	MKTTVGVYFCGPSAAARDIKAACKTAS	567
Fg-NoxA	TTMRNGILDRTYLNGLSH-----	IRTTVGVYFCGPSAAARDIKLACKAAT	544
An-NoxA	TAMRNGLDQSYMRLHHT-----	SRTEIGVYFCGPNVAARQIKAAAASSAS	537
Pa-NoxB	RGIRK-----LH-----	TPAEAGVFFCGPKGLGSQLHVFCNKYS	566
Fg-NoxB	RGIRK-----IH-----	SPAEGVYFYGPKGLGSSLHTYCNKYT	557
Mg-NoxB	RGIRK-----LH-----	TPAEAGVFFCGPKGLGSSLHTYCNKYT	569
Dd-NoxA	ADHAL-----RY-----	AEKDVGVFFCGPKLLSKSLYKASTHYT	503
Dd-NoxB	NQLTQ-----LH-----	QREKIGVYFCGNKALGKNIKNCNKFN	684
At-rbohC	KRIAMDHPNT-----	KVGVFYCGAPALTKELRHLALDFT	891
At-rbohG	KQIAMDHPGA-----	NVGVFYCGAPVLTKELRQLALEFT	835
At-rbohA	KRIAVNHPKT-----	RVGVFYCGAAGLVKELRHLSLDFS	888
At-rbohB	KHVAVNHVQ-----	RVGVFYCGNTCIIIGELKRLAQDFS	829
At-rbohD	KKIAVQHPGK-----	RIGVYFCGMPGMIKELKNLALDFS	907
At-rbohF	TKLSSKHCNA-----	RIGVYFCGVPVLKELSKLNCNTFN	930
At-rbohI	SKISTKHRNA-----	RIGVYFCGVPVSLGKELSTLCHEFN	928
At-rbohE	SSIARKHPNS-----	TVGVFYCGIQTVAKELKKQAQDMS	912

At-rbohH	SLSSYKYLN-----YISTP-----	839
At-rbohJ	SELSNKHETS-----RIGVFYCGSPTLVRPLKSLCQEF	898
Hs-Nox5	QKVAAEKKG-----KVQVFFCGSPALAKVLKGHC	729
Cf-Nox5	QKVAAEKK-----GKVQVFFCGSPALAKVLKGHC	757
Bt-Nox5	QKVAAEKK-----GKVQVFFCGSPALAKILKGHC	765
Md-Nox5	QKVAAEKK-----GKVQVFFCGSPALAKVLKSHC	738
Xt-Nox5	QKIEQENK-----GKVQVFFCGSPALAKIKAHC	755
Tr-Nox5	QKVSEKK-----GKVHVFCGSPALAKVIKAQCEHY	866
Tn-Nox5	-----	
Gg-Nox5	GRVAEERK-----GKVHVFFCGSPALAKVVRMHC	928
Ol-Nox5	QKLSKENKG-----KVHVFCGAPSLAKAIKAQC	744
Dr-Nox5	QKVSEKKG-----KVHVFCGSPALAKVIKAQC	625
Sp-Nox5A	TQIAREKKG-----KVQVFFCGSPTLAKIIKKS	815
Sp-Nox5B	QNLKQQHKG-----KITVFFCGSPALGKVLSTK	904
Ag-Nox5	KQIQDQKKG-----KVTVFCGPPQLAKTLRYK	1028
Am-Nox5	KHLQDQKKG-----KVTIFFCGPPQLARILRYK	930
Dm-Nox5	KQLQAQKKG-----KVTVFCGPPQLAKTLRYK	1079
Dd-NoxC	QYYSK-----KY-----SGESISVFCGPP	1126
Mg-NoxC	DRHYDDMRKYKAGLVARASRGGGGEDDAASVAD	829
Fg-NoxC	DEHYEMLKFRASKRTSTR---NKEDENYEDEEL	729
Cc-NoxD	GKIAAEAPSNS-----VVGVFFCGPHKMGDSV	775
Py-NoxD	AGITERSRSGS-----VVGVFFCGPHMKSISQD	880
Xt-Duox1	SSLQDVHPKVK-----KIGVFSCGPPGMTKN	1490
Xt-Duox2	ISLQEVHPEVR-----KIGVFSCGPPGMTKN	1543
Gg-Duox	DSLQEVHPEVH-----KIGVFSCGPPGMTKS	1429
Tr-Duox	NSLQDVHPEVG-----KIGVFSCGPPGLTKN	1486
Tn-Duox	NSLQDVHPEVG-----KMGVFSCGPPGLTKN	1618
Ol-Duox	NSLQEVHPEVG-----KMGVFSCGPPGLTKN	1538
Dr-Duox	SSLQEVHPEVE-----KVGVFSCGPPGLTKN	1489
Mm-Duox2	NSLQEVHPQVR-----KIGVFSCGPPGMTKN	1503
Rn-Duox2	DSLQEVHPQVH-----KIGVFSCGPPGMTKN	1503
Hs-Duox2	NSLQEVHPQVR-----KIGVFSCGPPGMTKN	1534
Cf-Duox2	KSLQEVHPQVP-----KIGVFSCGP---RNDQ	1282
Hs-Duox1	NSLQEVHPQVR-----KIGVFSCGPPGMTKN	1537
Cf-Duox1	KSLQEVHPQVR-----KIGVFSCGPPGMTKN	1538
Rn-Duox1	NSLQEVHPQVR-----KIGVFSCGPPGMTKN	1533
Mm-Duox1	NSLQEVHPQVR-----KIGVFSCGPPGMTKN	1537
Ci-DuoxA	VSLTEEHAEVE-----KFGVFSCGPPMTSCV	1561
Ci-DuoxC	VTLGEHSSVE-----TFGVFSCGPPMTGEV	1426
Ci-DuoxD	KTLSWKHSEVK-----KIGVFSCGPPSMTES	1500
Sp-Duox	QSLEDEHPGVG-----KIGVFSCGPPMTGGV	1657
Dm-Duox	KFVQKKHSYVS-----KIGVFSCGPRPLTKS	1459
Ag-Duox	KFVQKKHSYVS-----KIGVFSCGPRPLTKS	1460
Am-Duox	KFVQKKHSYVS-----KIGVFSCGPRPLTKS	1466
Ci-DuoxB	DSLQTKHKEVR-----TLGVFSCGPPGLTNG	1482
Ce-Duox1	QFIQSEHKEQS-----KIGVFSCGPVNLNES	1482
Ce-Duox2	QFIQSEHKEQS-----EIGVFSCGPVNLNES	1488

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Hs-Nox1	SLDP-----RKVQFYFNKENF-----	564
Cf-Nox1	SLDP-----RKVQFYFNKENF-----	564
Mm-Nox1	SLDP-----RKVQFYFNKETF-----	563
Rn-Nox1	SLDP-----RKVQFYFNKETF-----	563

Gg-Nox1	SLDP-----	RKVIFYFNKENF----	565
Xt-Nox1	SLDP-----	RKVQIFYFNKENF----	565
Tn-Nox1	DVDP-----	RKTKIFYFNKENF----	562
Tr-Nox1	DVDP-----	RKTKIFYFNKENF----	560
O1-Nox1	DVDP-----	RKTKIFYFNKENF----	565
Dr-Nox1	DVDP-----	RRTKIFYFNKENF----	576
Mm-Nox2	ESGP-----	RGVHFI FNKENF----	570
Rn-Nox2	ESGP-----	RGVHFI FNKENF----	569
Hs-Nox2	ESGP-----	RGVHFI FNKENF----	570
Cf-Nox2	ESGP-----	RGVHFI FNKENF----	570
Gg-Nox2	EADP-----	RGVHFI FNKENF----	570
Xt-Nox2	TVDP-----	RGVHFI FNKENF----	570
Tn-Nox2	GAD-----	VKFI FNKENF----	565
Tr-Nox2	EAD-----	VKFI FNKENF----	565
O1-Nox2	EAG-----	VKFI FNKENF----	566
Dr-Nox2	EGG-----	TEFI FNKENF----	565
Hs-Nox3	SADP-----	RGVHFYYNKESF----	568
Cf-Nox3	SADP-----	RGVHFYYNKESF----	567
Mm-Nox3	SVDP-----	RGVHFYYNKENF----	568
Rn-Nox3	SSDP-----	RGVHFYYNKENF----	568
Gg-Nox3	TVDP-----	RGVQFHYNEESF----	567
Ci-Nox2	GGG-----	VYFHYNKENF----	581
Sp-Nox2A	SLTP-----	DGAKFFYNKENF----	582
Sp-Nox2B	SDES-----	DGTRFVYYKENF----	562
Mm-Nox4	---S-----	YGTRFEYNKESFS----	578
Rn-Nox4	---S-----	YGTRFEYNKESFS----	578
Hs-Nox4	---S-----	YGTRFEYNKESFS----	578
Cf-Nox4	---S-----	YGTRFEYNKESFS----	584
Gg-Nox4	---P-----	YGTRFEYNKESFS----	543
Xt-Nox4	---Q-----	YGTTFEYNKESFT----	571
O1-Nox4	---S-----	SGATFEFNKESFS----	558
Tr-Nox4	---S-----	SETVFEFNKES----	555
Ci-Nox4	---S-----	SKVKFLFNKEAF----	811
Ag-Nox	---K-----	HGCKLSYFHEGFG----	555
Pa-NoxA	---S-----	SEVFRFRWKEHF----	554
Mg-NoxA	---V-----	NEVEFRWKEHF----	580
Fg-NoxA	---V-----	PDVDFRWFKEHF----	557
An-NoxA	---T-----	NEVKFKFWKEHF----	550
Pa-NoxB	---E-----	PGFNFWGKKNF----	579
Fg-NoxB	---E-----	PGFSFWGKKNF----	570
Mg-NoxB	---E-----	PDFAFVWGKKNF----	582
Dd-NoxA	---KT-----	TTCRFHYNKKNF----	517
Dd-NoxB	---GK-----	NNCHLIFHKKNF----	698
At-rbohC	HKTS-----	TRFSFHKKNF----	905
At-rbohG	HKTS-----	TRFSFHKKNF----	849
At-rbohA	HKTS-----	TKFIFHKKNF----	902
At-rbohB	RKTT-----	TKFEFHKKNF----	843
At-rbohD	RKTT-----	TKFDFHKKNF----	921
At-rbohF	QKGS-----	TKFEFHKKEHF----	944
At-rbohI	QTGI-----	TRFDFHKEQF----	942
At-rbohE	QKTT-----	TRFEFHKKEHF----	926
At-rbohH	-----	-----	-----
At-rbohJ	LESS-----	TRFTFHKKNF----	912
Hs-Nox5	-----	FRFFQKNF----	737
Cf-Nox5	-----	FKFFQKNF----	765

Bt-Nox5	-----FKFFQENF-----	773
Md-Nox5	-----FKFFKENF-----	746
Xt-Nox5	-----FKFFKENF-----	763
Tr-Nox5	-----FNFYKENF-----	874
Tn-Nox5	-----	
Gg-Nox5	-----FRFFKENF-----	936
O1-Nox5	-----FNFYKENF-----	752
Dr-Nox5	-----FHFYKENF-----	633
Sp-Nox5A	-----FSFHKENF-----	823
Sp-Nox5B	-----MEFRKENF-----	912
Ag-Nox5	-----FQFRKEVF-----	1036
Am-Nox5	-----FNFRKESF-----	938
Dm-Nox5	-----FAFRKECF-----	1087
Dd-NoxC	-----CLKT-----GGTKFYFHKENF-----	1142
Mg-NoxC	-----ARGRHDGS-----KIEYHFMIEVFN-----	849
Fg-NoxC	-----LRGWQDGIHEL-----GRIEWLVNYDGYDDHIN	757
Cc-NoxD	INSNLRGAYLRSTKEKTLMKDLGLPQRGLIKMLMGTGCSVRFVFREEENFG-----	825
Py-NoxD	ALSLARG-YRRGAIGLDGSREMRT-----	903
Xt-Duox1	-----KRDE-----SYFVHHYENF-----	1504
Xt-Duox2	-----KENQ-----AHFSSHFFENF-----	1557
Gg-Duox	KKDQ-----AYFAHQ-----	1439
Tr-Duox	KRDQ-----AHFIIHHYENF-----	1500
Tn-Duox	KRDQ-----THFIIHHYENF-----	1632
O1-Duox	KRDQ-----AHFIIHHYENF-----	1552
Dr-Duox	KRDQ-----THFVHHYENF-----	1503
Mm-Duox2	RQDR-----AHFVHHYENF-----	1517
Rn-Duox2	RQDR-----AHFVHHYENF-----	1517
Hs-Duox2	RQDR-----AHFMHHYENF-----	1548
Cf-Duox2	AHQQ-----AGPGPLR-----	1293
Hs-Duox1	RQDR-----THFSSHYYENF-----	1551
Cf-Duox1	RQDR-----THFSSHYYENF-----	1552
Rn-Duox1	KQDR-----THFSSHYYENF-----	1547
Mm-Duox1	RQDR-----THFSSHYYENF-----	1551
Ci-DuoxA	K-YEGAS-----F-----	1568
Ci-DuoxC	K-YEGPT-----FSHHFFENF-----	1440
Ci-DuoxD	K-HKGPM-----YAHFFENF-----	1514
Sp-Duox	K-FDGAA-----FIHHYENF-----	1671
Dm-Duox	KTRKLPY-----FIHHFFENFG-----	1475
Ag-Duox	KSRKWPY-----FIHHFFENFG-----	1476
Am-Duox	KGRRLPY-----FIHHFFENFG-----	1482
Ci-DuoxB	K-LNKAR-----FNHFYENF-----	1496
Ce-Duox1	RQRDAPS-----FAHRFETF-----	1497
Ce-Duox2	RQRDAPS-----FAHRFETF-----	1503

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