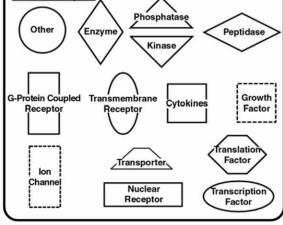


Edge Types	
$\underline{A}$ binding only $\underline{B}$	A inhibits B
A acts on B	
A inhibits AND acts	on B
Note: "acts on" and "inhi a binding event.	bits" edges may also include

Edge Labels A Activation/deactivation B Binding E Expression Inhibition 1 L proteoLysis biochemical Modification м ο Other Р Phosphorylation/dephosphorylation Transcription т Node Shapes nospha



## **Supplementary Figure 1**

Gene-gene interactions surrounding RELA captured in the observed human interactome. The immediate neighborhood of the nuclear factor kappa beta gene, RELA, includes 150 genes and 619 direct interactions, derived from 847 published articles. Interactions among genes were modeled as activation, binding, expression, inhibition, proteolysis, modification, phosphorylation, or transcription. The genes were further identified as being either an enzyme, peptidase, growth factor, transcription/translation factor, receptor, cytokine, or kinase/phosphatase by the shape of the node.