Health Research Institute Laboratories

Report Number S0004900- 20190506
Report Date 2019-05-06

Certificate of Analysis

Sample Description:	Impossible Burger and Beyond Meat	Sample Numbers:	S0004900-S0004901
Client:	Moms Across America Mission Viejo	Receipt Date:	2019-04-18
Sample Mass:	various	Test Date:	2019-04-29
		Shipment Temp:	ambient
		Storage Temp:	ambient

Samples:				**Results:**		
Sample ID#	**Sample Description/ UPC Code**	**Lot # and Expiration Date**	**Sample Volume / Mass**	**Glyphosate (ng/g)**	**AMPA (ng/g)**	**Effective Glyphosate Level (ng/g)**
S0004900	Impossible Burger / meat substitute	N/A	apprx 100 g	7.1	2.8	11.3
S0004901	Beyond Meat / meat patty substitute	Lot # VF111268 330	1 patty	0.6	0.3	1.0

Methods

Sample Analysis: HRI TM #8 "Glyphosate and AMPA Detection by LC-MS/MS"

Sample preparation employed a modification of the method described in Chamkasem, Narong, Cynthia Morris, and Tiffany Harmon. 2016. "Direct Determination of Glyphosate, Glufosinate, and AMPA in Milk by Liquid Chromatography/tandem Mass Spectrometry." *Journal of Regulatory Science* 3 (2): 20–26.

LC-MS/MS analysis employed a modification of the method described in Jensen, Pamela K., Chad E. Wujcik, Michelle K. McGuire, and Mark A. McGuire. 2016. "Validation of Reliable and Selective Methods for Direct Determination of Glyphosate and Aminomethylphosphonic Acid in Milk and Urine Using LC-MS/MS." Journal of Environmental Science and Health, Part B 51 (4): 254–59. doi:10.1080/03601234.2015.1120619.

Limit of Quantitation (LOQ) and Limit of Detection (LOD) are sub-part per billion for this method and are determined for each sample.

ND = Not Detected; result is below the LOD
D = Detected, but result is below the LOQ

ng/g and ng/mL may also be expressed as parts per billion (ppb)

Effective Glyphosate Level calculated according to Food and Agriculture Organization (FAO) method where

total glyphosate residue is the sum of the weight of glyphosate + 1.5 × the weight of its metabolite AMPA.

Released on Behalf of HRI Laboratories by:

Dr. John Fagan, Sr. Scientist

P.O. Box 370
Fairfield, IA 52556
+1 641-552-6258

PJLA Testing
ISO/IEC 17025:2005
Accreditation # 92657