

## Report for Biopharma Scientific

Sample ID	Brunswick Lab ID	ORAC <sub>hydro</sub> * ( $\mu$ moleTE/g)	ORAC <sub>lipo</sub> <sup>^</sup> ( $\mu$ moleTE/g)	ORAC <sub>total</sub> ( $\mu$ moleTE/g)
Nano Mega Lot # 662008	08-0922	258	124	382

\*The ORAC analysis provides a measure of the scavenging capacity of antioxidants against the peroxy radical, which is one of the most common reactive oxygen species (ROS) found in the body. ORAC<sub>hydro</sub> reflects water-soluble antioxidant capacity and the <sup>^</sup>ORAC<sub>lipo</sub> is the lipid soluble antioxidant capacity. ORAC<sub>total</sub> is the sum of ORAC<sub>hydro</sub> and ORAC<sub>lipo</sub>. Trolox, a water-soluble Vitamin E analog, is used as the calibration standard and the ORAC result is expressed as micromole Trolox equivalent (TE) per gram.

The acceptable precision of the ORAC assay is 15% relative standard deviation.<sup>1-2-3</sup>

Testing performed by M. Kondo.

Approved by: \_\_\_\_\_  
Boxin Ou, PhD.

B-7345 / 4-3-08 lrh

Samples will be discarded one month from report date, unless otherwise notified by customer in writing.

<sup>1</sup> Ou, B.; Hampsch-Woodill, M.; Prior, R. L.; Development and Validation of an Improved Oxygen Radical Absorbance Capacity Assay using Fluorescein as the Fluorescent Probe. Journal of Agricultural and Food Chemistry.; **2001**; 49(10); 4619-4626

<sup>2</sup> Huang, D.; Ou, B.; Hampsch-Woodill, M.; Flanagan, J.; Deemer, E. K.; Development and Validation of Oxygen Radical Absorbance Capacity Assay for Lipophilic Antioxidants using Randomly Methylated  $\beta$ -Cyclodextrin as the Solubility Enhancer. Journal of Agricultural and Food Chemistry.; **2002**, 50(7); 1815-1821.

<sup>3</sup> Ou, B.; Huang, D.; Hampsch-Woodill, M.; Method for Assaying the Antioxidant Capacity of A Sample. \*US Patent 7,132,296 B2\*