



50 Commerce Way  
Norton, MA 02766 USA

Phone: 508.285.2006  
Fax: 508.285.8002

## Report for BioPharma Scientific

Sample ID	Brunswick Lab ID	ORAC <sub>hydro</sub> * ( $\mu$ mole TE/g)	ORAC <sub>lipo</sub> ^ ( $\mu$ mole TE/g)	ORAC <sub>total</sub> ( $\mu$ mole TE/g)
Nanogreens 10 Lot # 061497	07-1121	559	129	688

\*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 ^ ORAC<sub>lipo</sub> is the lipid soluble antioxidant capacity. 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>

Sample ID	Brunswick Lab ID	HORAC* ( $\mu$ mole CAE/g)	NORAC ^ ( $\mu$ mole TE/g)
Nanogreens 10 Lot # 061497	07-1121	39	63

\*Caffeic Acid is used as the calibration standard and the HORAC result is expressed as  $\mu$ mole Caffeic Acid equivalent (CAE) per gram.

^ Trolox is used as the calibration standard and the NORAC result is expressed as  $\mu$ mole Trolox equivalent (TE) per gram.

Sample was received in an unopened canister with a heat induction seal.

Testing performed by J. Frietas and J. Theobald.

Approved by:

  
Boxin Ou, PhD.

B-5830 / 4-16-07 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  $\alpha$ -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\*