

# Total ORAC<sub>FN</sub>

## Report for Consolidate Marketing Unlimited, Inc D/B/A Medical Research Products

### Sample Identification:

Batch # B-6436  
BL ID # 07-2806  
Description: Cantron Advanced Scientific Version, Liquid  
Date Tested 9-14-07  
Tested By: Brunswick Laboratories

### Results:

Test	Result	Units
Antioxidant power against peroxy radicals <sub>1</sub>	2,083,457	μmole TE/L
Antioxidant power against hydroxyl radicals <sub>2</sub>	5,478,175	μmole TE/L
Antioxidant power against peroxynitrite	129,664	μmole TE/L
Antioxidant power against super oxide anion <sub>3</sub>	320,145	μmole TE/L
Antioxidant power against singlet oxygen <sub>4</sub>	304,110	μmole TE/L
Total ORAC <sub>FN</sub>	8,315,551	μmole TE/L

\* The acceptable precision of the ORAC assay is <15% relative standard deviation

There are five predominant reactive species found in the body: peroxy radicals, hydroxyl radicals, peroxynitrite, super oxide anion, and singlet oxygen. Total ORAC<sub>FN</sub> provides a measure of the total antioxidant power of a food/nutrition product against the five predominant species.

This report was not compiled by Brunswick Laboratories. It was compiled by Medical Research Products utilizing the Brunswick Laboratory format for reporting Total ORAC<sub>FN</sub>. All data from this report came from tests conducted by Brunswick Laboratories in September of 2007. At the time Cantron ASV formula was tested, Brunswick did not utilize the Total ORAC<sub>FN</sub> reporting procedure. To accommodate their new reporting procedure they changed all test standards to the uniform μmoleTE/L; whereas in the initial reporting hydroxyl radicals were measured in μmoleCAE/L and superoxide anions were measured in kunitsSODEq/L. To report in the Brunswick format both of these scores were converted to the new standard utilized by Brunswick- TE/L.

<sub>1</sub> includes scores for both the hydrophilic peroxy radical (1,959,709 μmoleTE/L) and the lipophilic radical (123,748 μmoleTE/L). Unlike other antioxidants, Cantron has powerful radical quenching properties on both forms of this pernicious radical species.

<sub>2</sub> the initial test was measured as 288,325 μmole CAE/L and converted to 5,478,175 μmoleTE/L.

<sub>3</sub> singlet oxygen was tested by Brunswick on a similar formulation but not in the actual Cantron ASV version. Results are projected based upon scientific calculation taking into account the difference in content quantity of the 2 formulations. For actual results, ASV needs to be tested accordingly.

<sub>4</sub> the initial test was measured as 7,331 kunitsSODEq/L (or 7,331,000 unitsSODEq/L) and converted to 320,145 μmoleTE/L.

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Sample ID	Brunswick Lab ID	ORAC <sub>hydro</sub> * (μmoleTE/L)	ORAC <sub>lipo</sub> ^ (μmoleTE/L)	ORAC <sub>total</sub> (μmoleTE/L)
Cantron-Advanced Scientific Version	07-2806	1,959,709	123,748	2,083,457

\*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 liter.

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

Sample ID	Brunswick Lab ID	HORAC* (μmole CAE/L)	NORAC ^ (μmole TE/L)	SOD* (kunitSODeq/L)
Cantron-Advanced Scientific Version	07-2806	288,325	129,664	7,331

\*Caffeic Acid is used as the calibration standard and the HORAC result is expressed as μmole Caffeic Acid equivalent (CAE) per liter.

^ Trolox is used as the calibration standard and the NORAC result is expressed as μmole Trolox equivalent (TE) per liter.

\*Superoxide Dismutase (SOD) is used as the calibration standard and the SOD result is expressed as kilo unit SOD equivalent (kunitSODeq) per liter.


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<b>Sample ID</b>	<b>Brunswick Lab ID</b>	<b>Phenolics* (mg/L)</b>
Cantron-Advanced Scientific Version	07-2806	134,676.20

\* The phenolic result is expressed as milligram gallic acid equivalent per liter.

Testing performed by J. Theobald and T. Zhang.

Approved by: 

Boxin Ou, PhD.

B-6436C / 9-14-07 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 -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\*



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Sample Submittal Form

Requested By		Invoice To		Report To	
Company	Consolidated Mktg	Company	SAME	Company	SAME
Address	3960 NW 167th St Miami Gard., FL 33054	Address		Address	
Phone	305 628-0981	Phone		Phone	
Fax	305 628-2091	Fax		Fax	
Email	Jergodin@bellsouth.net	Email		Email	

New customers are required to prepay for analysis. We accept checks, wire transfers, MasterCard & Visa.

Purchase Order (if required) or Check Number	MasterCard/ Visa	Card No	Name on Card
MRP - 1		Credit references sent in	
	Verification Code		Expiration Date

For Client Use Only		For Brunswick Use Only	
Samples Sent By	Jerome Godin	Received By	LRA
Date Sent	8/15/07	Date Received	8-20-07

For analysis other than ORAC, please fax this form to us prior to sending samples. Also, enclose a copy with your samples.

No.	Sample ID	Lot No.	Analysis Requested (Code # & Desc)	Estimated Levels (if applicable)	Comments (including sample descriptions)
1	Cantron - Advanced Scientific version		A107, A111, A201, A202	8 oz.	dark black liquid Please shake well before testing

07-2806

Notes or special instructions: Consolidated Marketing Unlimited, Inc., DIBLA Medical Research Products