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**Microbac Laboratories, Inc.**

HAUSER DIVISION  
 4750 Nautilus Court South  
 Unit A  
 Boulder, CO 80301  
 (720) 406-4800 Fax (303) 581-0195  
 Steve Ferry, Managing Director, Hauser Division  
<http://www.microbac.com> E-Mail: [sferry@microbac.com](mailto:sferry@microbac.com)

**CERTIFICATE OF ANALYSIS**

Sample	Analysis	Method	Test Result	Units	Minimum Reporting Limit	Actual Result	Date	Tech
001	<b>Whey Powder 0907-32</b>							
	Phytosterols by GC	HL 4268 DRAFT						
	Campesterol	HL 4268 DRAFT	11.40	ug/g		11.40	09/08/09	EDC
	Stigmasterol	HL 4268 DRAFT	10.67	ug/g		10.67	09/08/09	EDC
	B-Sitosterol	HL 4268 DRAFT	16.09	ug/g		16.09	09/08/09	EDC
	Lupeol	HL 4268 DRAFT	<5	ug/g		<5	09/08/09	EDC

Analysis of samples by GC-FID resulted in very high surrogate recovery. The samples were re-analyzed by GC-MS and it was found that cholesterol was present at approximately 100X the concentration of the phytosterols detected and was eluting at the same retention time as the surrogate compound, dihydrocholesterol. GC-MS analysis based on the primary ions of dihydrocholesterol found surrogate recoveries of 140% for the first duplicate prep and 120% for the second. RPD of the duplicate analyses was found to be 11.5% for campesterol, 16.1% for stigmasterol, and 23.5% for b-sitosterol. Spike recovery was found to be 30%. The data reported is for the average result of the duplicate analyses of the sample by GC-MS. Due to the out of specification QC results the reported concentrations should be considered approximate. GC-MS analysis confirmed the detection of the phytosterols.

**Flags, footnotes and abbreviations (as needed)**

*OST = Outside Subcontracted Testing (For more details, please contact the Project Manager)	
NA = Not Analyzed	
N/A = Not Applicable	mg/L = Milligrams per Liter (ppm)
CFU = Colony Forming Units	mg/kg = Milligrams per Kilogram (ppm)
IU = International Units	ug/L = Micrograms per Liter (ppb)
g/100g = Grams per 100g of sample	ug/kg = Micrograms per Kilogram (ppb)

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