

## SAMPLE SUBMISSION

Send samples to:

Brunswick Laboratories LLC  
50 Commerce Way  
Norton, MA 02766 USA

A completed Brunswick Laboratories SAMPLE SUBMISSION FORM is needed so samples can be accurately logged into the system and the process begun. The analysis will be delayed until there is a completed form. If you have difficulty downloading the form or completing the form, please call us and we will be happy to assist you. Brunswick is equipped to receive samples via all delivery services but samples that may “spoil” or change characteristics, should not be shipped for “overnight delivery” to arrive on Saturday.

- Name, address, telephone, fax, and e-mail information of the contact person to receive the results, and the same information for the person/department to receive the invoice if different from contact person.
- New customers are required to pre-pay for analyses to be done. Form of payment may be check (must clear before work is begun), wire transfer, VISA or MasterCard.
- To establish a new account, please contact Rose Steele --[rstele@brunswicklabs.com](mailto:rstele@brunswicklabs.com)
- Please include a Copy of the *Purchase Order* if utilized by your company.
- Description of each sample and/or a discreet identifier number for each sample.
- List of specific analyses ordered for each sample, with any special instructions for sample preparation – brewing, etc. If results are to be expressed in units other than our standard of “units per gram” for solids and “units per liter or ml” for liquids, it must be known at the time of analysis.
- Sample size required: powder – 5 grams; “fresh” product – 25 grams; liquid – at least 50 ml.
- Service fees and up-charges will apply to deviations from standard sample preparation – such as de-fatting, special brewing, etc. and to requests for re-formatting reports, conversion of units of measure, chromatograms, and other data related requests.

## RESULTS

- The *Certificate of Analysis* will be faxed or e-mailed when the analyses are completed.
- The original *Certificate of Analysis* will be mailed with the invoice.

## SAMPLE RETENTION

- Samples are retained for 30 days after the results are sent to the client. If the sample is *perishable*, it will be discarded immediately after the analysis is completed, unless instructed otherwise by the client. If the client formally requests samples to be retained for a longer period in refrigerator or freezer storage, a storage fee will be charged.

## CONFIDENTIALITY

- All work and data generated for a specific client is considered by Brunswick Laboratories LLC to be *CONFIDENTIAL* and will not be released to other parties without written permission from the specific client person to whom the data was sent.

## CLIENT ASSISTANCE

- The business of Brunswick Laboratories LLC is to provide accurate data to our clients on a timely basis. It is our desire to support our clients within the Mission of our business and suggest that the most efficient method of communicating is to submit questions to [info@brunswicklabs.com](mailto:info@brunswicklabs.com) -- your questions will be directed to the proper individual and answered in a timely manner.
- Telephone consulting with a particular scientist is available upon request, for a fee of \$100/hr., prorated per 15 minute segments for less than one hour.
- Quotes to conduct/orchestrate complex projects are available after Brunswick understands the nature, objectives, and protocol of the project.

## PRICING AND TURNAROUND TIME

- Prices shown on the published Price List are for single samples and are *subject to change without notice*.
- Brunswick Laboratories LLC must be notified and approve *in advance*, all samples being submitted for “RUSH”. Our unit pricing is based upon the normal, minimum throughput of the specific analyzer and the associated labor costs, applied to the multiple sample units. When the RUSH request puts us outside of this cost profile, there is an “up charge” based upon the complexity of the particular assay and the “RUSH” requirements in work days.
- We consider these to be our predictable/standard turn around time in “BUSINESS DAYS” for our most popular assays:

**Brunswick Laboratories Turn Around Time Table:**

Assay	NORMAL Turn Around Time ( Business Days)	RUSH Turn Around Time (Business Days)
ORAC <sub>hydro</sub> (A101)	10	3
ORAC <sub>lipo</sub> (A102)	10	3
HORAC (A104)	15-20	Not available
NORAC (A105)	15-20	Not available
SORAC (A106)	15-20	Not available
SOAC (A105-1)	15-20	Not available
Total Antioxidant Power ( A107)	15-20	Not available
COX 1 & 2	20	5
Phenolics	15-20	5
Total Anthocyanins	15-20	5
FRAP	15-20	5
DPPH	15-20	5
TEAC	15-20	5
LC/MS/MS (non-biological samples)	15-20	7-10
HPLC	15-20	7-10
Individual PACs	without de-fatting	3-5 for regular samples
	with de-fatting	5-8 ( max 18 samples)

Please note: Rush analysis cost is DOUBLE the list price.

**Service fees and Up-Charges**

Reformat reports- if not designated with sample submittal	\$ 20 per report
Conversion of units of measure- if not designated with sample submittal	\$ 20 per report
Chromatograms if not requested with sample submittal	\$ 20 per chromatogram
De-fatting	\$ 25 per sample
Special Grinding	\$ 5 per sample
Archive retrieval	\$ 50 per request



### Sample Submittal Form

Requested By		Invoice To		Report To	
Company		Company		Company	
Address		Address		Address	
Phone		Phone		Phone	
Fax		Fax		Fax	
Email		Email		Email	

Purchase Order No	MasterCard	Visa	Card No		Name on Card	
	Verification Code				Expiration Date	

For Client Use Only			For Brunswick Use Only		
Samples Sent By			Received By		
Date Sent			Date Received		

**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 (including sample Description)	Lot No.	Analysis Requested (Code # & Desc)	Estimated Levels (if applicable)	Comments

Notes or special instructions:

## NUTRACEUTICAL, ANTIOXIDANT, AND OXIDATIVE STRESS TESTING SERVICE LIST

### In Vitro Antioxidant Activity

Code	Items	Price*
A101	ORAC <sub>hydrophilic</sub> -quenching peroxy radicals (for hydrophilic samples)	\$ 275.00
A102	ORAC <sub>lipophilic</sub> -quenching peroxy radicals (for lipophilic samples)	\$ 375.00
A103	ORAC <sub>hydrophilic</sub> & ORAC <sub>lipophilic</sub>	\$ 500.00
A104	HORAC-quenching hydroxyl radicals	\$ 325.00
A105-1	SOAC – quenching singlet oxygen <sup>new</sup>	\$ 425.00
A105	NORAC-quenching peroxy nitrite	\$ 325.00
A106	SORAC-quenching superoxide anion	\$ 350.00
A107	Total Antioxidant Power (all of the above)	Quote only
A108	ORAC <sub>Oil</sub> - (for oil samples)	\$ 500.00
A109	ORAC <sub>sc</sub> -(for skin care products)	Quote only
A109-E	ORAC <sub>emulsion</sub> ( for skin care products)	\$750.00
A110	Total Bioflavonoids	\$ 325.00
A111	Total Phenolics	\$ 235.00
A112	Total Anthocyanins	\$ 235.00
A113	ORAC <sub>hydrophilic</sub> , Total Phenolics, & Total Anthocyanins	\$ 500.00
A114	ORAC <sub>hydrophilic</sub> & Total Phenolics	\$ 350.00
A115	FRAP-Ferric Reducing Antioxidant Power	\$ 240.00
A116	TEAC-Trolox Equivalent Antioxidant Capacity	\$ 240.00
A117	DPPH-DPPH Radical Scavenging Capacity	\$ 240.00
A118	Total Proanthocyanidins ( PACs) <sup>new</sup> DMAC	\$ 425.00

\*: Effective 08/01/08

### Anti-Inflammatory Activity

Code	Items	Price*
A201	Cox-1 Enzyme Inhibitor	\$ 475.00
A202	Cox-2 Enzyme Inhibitor	\$ 575.00
A203	5-Lipoxygenase (LOX) Inhibitor	\$ 475.00

\*: Effective 08/01/08

### Routine HPLC Analysis for Raw Ingredients

Code	Analyte	Price*
<b>Vitamins</b>		
V301	Vitamin A	\$ 275.00
V302	Vitamin B (B1, B2, B3, B6, and B12) Price is each please specify	\$ 225.00
V303	Folic Acid	\$ 225.00
V304	Vitamin C	\$ 175.00
V305	Vitamin D3	\$ 220.00
V306	Vitamin K1	\$ 295.00
V307	Vitamin H (Biotin)	\$ 275.00
V308	Tocopherols (alpha, beta, gamma, delta)	\$ 375.00
V309	Tocotrienols (alpha, beta, gamma, delta)	\$ 375.00
V310	Tocopherols & Tocotrienols (V308 & V309)	\$ 500.00
<b>Carotenoids</b>		
C401	Alpha & Beta Carotene	\$ 200.00
C402	Lutein	\$ 215.00
C403	Lycopene	\$ 215.00
C404	Zeaxanthin	\$ 215.00
C405	Astaxanthin (free)	\$ 215.00
C407	Astaxanthin (total)	\$525.00
<b>Phenolic Acids</b>		
P601	Cinnamic Acid	\$175.00
P603	Chlorogenic Acids	\$ 475.00
P604	Ellagic Acid (free)	\$ 255.00
P605	Ellagic Acid (total)	\$ 475.00
P606	Ferulic Acid	\$ 250.00
P607	Gallic Acid	\$ 150.00
P608	Caffeic Acid	\$ 275.00
P609	p-Coumaric Acid	\$ 295.00
<b>Catechins</b>		
C701	Catechin	\$ 175.00
C702	(-) Epicatechin	\$ 175.00
C703	Epigallocatechin	\$ 175.00
C704	Epigallocatechin Gallate	\$ 175.00
C705	Catechin Gallate	\$ 175.00
C706	Gallocatechin	\$ 175.00
C707	Gallocatechin Gallate	\$ 175.00
C708	Epicatechin Gallate	\$ 175.00
C709	All above catechins	\$ 575.00
C710	All above catechins plus caffeine ( for Green Tea products)	\$ 625.00

\*Effective 08/01/08

**Routine HPLC Analysis for Raw Ingredients (Continued)**

Code	Analyte	Price*
<b>Organic Acids</b>		
O501	Group 1: Benzoic acid, sorbic acid	\$ 200.00
O502	Group 2: Citric acid, malic acid, lactic acid, actic acid	\$ 200.00
O503	Group 3: Tartaric acid, formic acid, succinic acid, fumaric acid	\$ 200.00
O504	Group 4: Propionic acid	\$ 200.00
O505	Group 5: Oxalic acid	\$ 200.00
O506	Group 6: Quinic acid, malic acid, citric acid	\$ 200.00
O507	Group 7: Pyruvic acid	\$ 200.00
<b>Phytoestrogens</b>		
P801	Daidzein	\$ 155.00
P802	Genistin	\$ 200.00
P803	Glycitein	\$ 150.00
<b>Flavonoids</b>		
F901	Individual Anthocyanins	\$ 475.00
F902	Individual Proanthocyanidins by HPLC- A/B type linkage	\$ 525.00
F904	Quercitrin	\$ 250.00
F905	Quercetin	\$ 275.00
F906	Rutin	\$ 175.00
F907	Myricetin	\$ 225.00
F908	Kaempferol	\$ 225.00
<b>Miscellaneous</b>		
M1001	Co-Enzyme Q10	\$ 275.00
M1002	Total Polysaccharides	\$ 375.00
M1004	Peak X in 5-HTP	\$ 750.00
M1005	Gamma-Oryzanol	\$ 425.00
M1006	Total Reservertrol	\$ 495.00
M1007	Betaine (Goji berries)	\$ 375.00
M1008	Hyperforin and Hypericin	\$ 475.00
M1009	Xanthones <small>new</small>	\$ 575.00
M1010	Punicalagins A &B	\$575.00
M1011	Caffeine	\$200.00

\*: Effective 08/01/08. Prices are subject to change without notice. Please call for competitive pricing for special projects.

**LC-MS/MS Analysis for Finished Products/Complex Matrix\*\***

Code	Analyte	Matrix
<b>Nutrients/Markers</b>		
NM-001	Agnuside	Plant/Extract/Finished Product
NM-002	Anthocyanidins (apigeninidin and luteolinidin)	Plant/Extract/Finished Product
NM-003	Arbutin	Plant/Extract/Finished Product
NM-004	Asiaticoside	Plant/Extract/Finished Product
NM-005	Astragalosides (astragaloside I, II, and IV)	Plant/Extract/Finished Product
NM-006	Baicalin and baicalein	Plant/Extract/Finished Product
NM-007	Carotenoids (astaxanthin, $\alpha,\beta$ -carotene, lycopene, lutein, and zeaxanthin)	Plant/Extract/Finished Product
NM-008	Catechins (catechin, epicatechin, gallicocatechin, epigallocatechin, gallicocatechin gallate, epigallocatechin gallate, catechin gallate, and epicatechin gallate)	Plasma/Urine/Plant/Extract/Finished Product
NM-009	Chrysin	Plant/Extract/Finished Product
NM-010	Curcumin	Plant/Extract/Finished Product
NM-011	Cynarin	Plant/Extract/Finished Product
NM-012	Diosgenin	Plant/Extract/Finished Product
NM-013	Echinacoside	Plant/Extract/Finished Product
NM-014	Eleutherosides B and E	Plant/Extract/Finished Product
NM-015	Emodin, physcion, and resveratrol.	Plant/Extract/Finished Product
NM-016	Ephedrine, pseudoephedrine, norephedrine, norpseudoephedrine, methylephedrine, and methylpseudoephedrine.	Plant/Extract/Finished Product
NM-017	Flavonoids (apigenin, chrysoeriol, hesperetin, hesperidin, hyperoside, isoorientin, isoquercitrin, isorhamnetin, isovitexin, luteolin, myricetin, naringenin, naringin, orientin, phloretin, phloridzin, quercetin, rutin, vitexin, and tamarixetin)	Plant/Extract/Finished Product/ Plasma/Urine
NM-018	Folic acid	Plant/Extract/Finished Product
NM-019	Forskolin	Plasma/Plant/Extract/Finished Product
NM-020	Glucosamine	Finished Product
NM-021	Glycyrrhizic acid	Plant/Extract/Finished Product
NM-022	Guggulsterone	Plant/Extract/Finished Product
NM-023	Harpagoside and harpagide	Plant/Extract/Finished Product
NM-024	Huperzine A	Plant/Extract/Finished Product
NM-025	Hydrastine and berberine	Plant/Extract/Finished Product
NM-026	Hypericin and hyperforin	Plant/Extract/Finished Product
NM-027	Icariin	Plant/Extract/Finished Product
NM-028	Indole-3-carbinol	Supplements
NM-029	Ipriflavone	Supplements
NM-030	Kavain, dihydrokavain, and dihydromethysticin	Plant/Extract/Finished Product
NM-031	Kojic acid	Food and cosmetic products
NM-032	Ligustilide	Plant/Extract/Finished Product

**LC-MS/MS Analysis for Finished Products/Complex Matrix\*\* (Continued)**

Code	Analyte	Matrix
<b>Nutrients/Markers</b>		
NM-033	Lovastatin	Red Yeast/Extract/Products
NM-034	Alpha-Mangostin	Plant/Extract/Finished Product
NM-035	Oleuropein	Plant/Extract/Finished Product
NM-036	Pantethine and pantothenic acid (vitamin B5)	Extract/Finished Product
NM-037	Parthenolide	Plant/Extract/Finished Product
NM-038	Phytosterols (stigmasterol, $\beta$ -sistoterol, and campesterol)	Plant/Extract/Finished Product
NM-039	Rosmarinic acid and carnosic acid	Plant/Extract/Finished Product
NM-040	Salicin	Plant/Extract/Finished Product
NM-041	Salidroside and rosavin	Plant/Extract/Finished Product
NM-042	Schizandrins A and B and schisantherin A	Plant/Extract/Finished Product
NM-043	Senosides A and B	Plant/Extract/Finished Product
NM-044	Simmondsin	Plant/Extract/Finished Product
NM-045	Stevioside	Plant/Extract/Finished Product
NM-046	Synephrine	Fruit/Extract/Finished Product
NM-047	L-Theanine	Green tea/Extract/Finished Product
NM-048	Theobromine	Food Products
NM-049	$\alpha$ -Tocopherol (vitamin E)	Extract/Finished Product
NM-050	Valerenic acid	Plant/Extract/Finished Product
NM-051	Vitamin A	Finished Product
NM-052	Vitamin B (B1, B2, B3, B6, B12)	Finished Product
NM-053	Vitamin D3	Finished Product
NM-054	Vitamin E (alpha-tocopherol, acetate, succinate)	Finished Product
NM-055	Vinpocetine and vincamine	Extract/Finished Product
NM-056	Withaferin A	Plant/Extract/Finished Product
NM-057	Yohimbine	Plant/Extract/Finished Product
<b>Residues</b>		
R-001	Chloramphenicol and natamycin	Plasma/Food Products/Finished Product
R-002	Tetracycline, epitetracycline, oxytetracycline, and chlorotetracycline	Plasma/Food Products/Finished Product
<b>Toxins</b>		
T-001	Acrylamide	Food Products
T-002	Aristolochic acid	Plant/Extract/Finished Product/Plasma
T-003	Ginkgolic acids (ginkgolic acids C13:0, C15:1, and C17:1)	Plant/Extract/Finished Product
T-004	Mycotoxins (aflatoxin B1, aflatoxin M1, ochratoxin A, and citrinin)	Food/Dietary Supplements
T-005	Pyrrrolizidine alkaloids (monocrotaline and retrosine, etc.)	Plasma/Plant/Finished Product

**LC-MS/MS Analysis for Finished Products/Complex Matrix\*\* (Continued)**

Code	Analyte	Matrix
<b>Oxidative Stress Biomarkers</b>		
OSB-001	8-Hydroxy-2'-deoxyguanosine	Plasma/Urine
OSB-002	Tyrosine and 3-nitrotyrosine	Plasma/Urine
OSB-003	8-iso-PGF2-alpha	Plasma/Urine
OSB-004	Total Peroxides	Urine
OSB-005	Total Lipid Peroxides	Plasma
OSB-006	Total Antioxidant Status	Plasma

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1. The prices are sample number and matrix dependent and we will offer complete prices. Please ask for price.
2. We will continue to develop more assays using LC-MS/MS to meet our customers' specific needs.