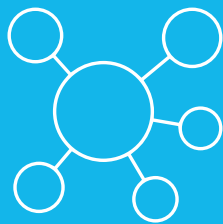




Medallion Labs
FOOD FIRST. SCIENCE FOREMOST.



FROM TESTING TO TABLE

Food Industry Solutions

03

QUALITY GUARANTEED

05

CHEMISTRY

Services Alphabetical
Services Categorical

21

MICROBIOLOGY

Services Alphabetical

23

SUBMIT A SAMPLE

Collection
Shipping
Privacy
Fees

26

TERMS AND CONDITIONS

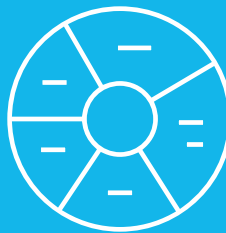
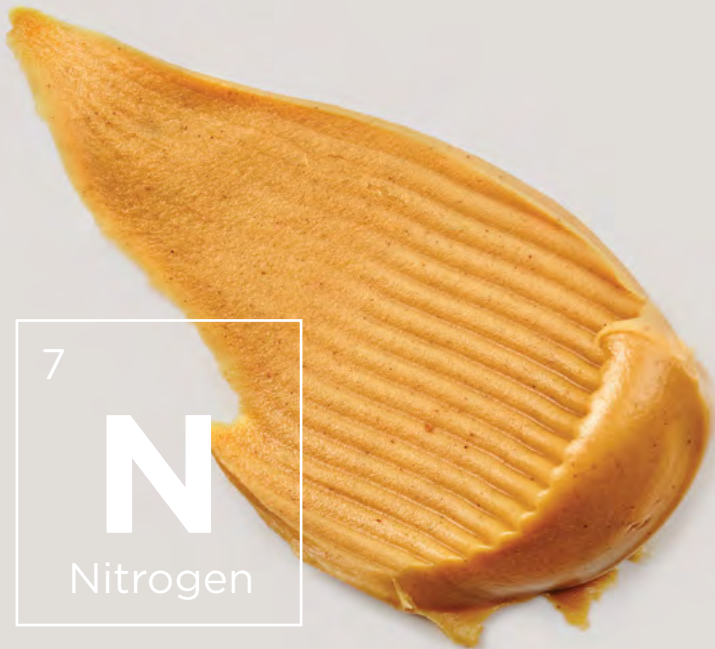


EXPERTISE

EVERY STEP OF THE WAY

Scientists at Medallion Labs provide the knowledge you need to feel confident about the foods you put on consumers' tables.

More than 150 years ago, long before we became known as Medallion Labs, we were founded as General Mills' exclusive internal lab. For decades our team was charged with protecting their products, their family of brands and the consumers who enjoyed them. In 1974 our role expanded, and since then more than 3,000 national and international clients have turned to us for our reliable and flexible solutions as they strive to bring food people love to tables around the globe.



This is a responsibility our expert scientists do not take lightly as they work diligently to execute on the rigorous testing and analysis Medallion Labs is known for. Treating each sample with care and precision, this team maintains both the integrity of your results and the confidentiality of your products.

Beyond testing, we act as a resource – a resource to help you learn more about your food products, ingredients and packaging. A resource comprised of more than 100 highly qualified food industry scientists ready to design a customized approach to reach a common goal: getting your food to the table and into the hands of consumers.

We offer services in the areas of chemistry and microbiology.



CHEMISTRY



MICROBIOLOGY



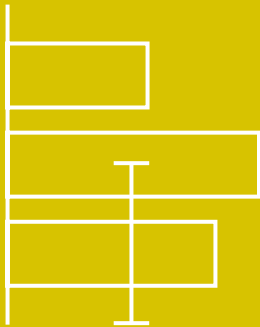
QUALITY GUARANTEED



Medallion Labs is an ISO/IEC 17025 Accredited Testing Laboratory

Quality is of the utmost importance to our scientists at Medallion Labs. Our Quality Management System and analytical methods meet the most stringent of requirements of an internationally recognized standard for testing labs in the Food and Pharmaceutical industry. In short: We don't cut corners.

Medallion's accreditation is recognized across the globe through a mutual recognition agreement with the International Laboratory Accreditation Corporation (ILAC). We hold our scientists to the highest standards, which allows us to guarantee high-quality, reliable results, every time. ISO/IEC 17025 accreditation requires Medallion Labs to have the policies, procedures and detailed work instructions necessary in place to ensure proper technical, managerial and operating practices at all times. To see the details of our accreditation, visit a2la.org and search certificates 2769.01 and 2769.02.



CHEMISTRY



Our expert scientists deliver reliable, accurate and cost-effective chemical analyses.

At Medallion Labs, we're experts at testing for standard nutrition label requirements. We use the official methods of the Association of the Official Analytical Chemists (AOAC), American Association of Cereal Chemists (AACC), and American Oil Chemists' Society (AOCS). Or, we employ extensive statistical comparisons and collaborate as a team to produce an equivalent.

We are innovative leaders, continually developing new methodology for total dietary fiber, fructans, resistant oligosaccharides, polydextrose, resistant starch and fat by GC for NLEA requirements. Our technical experts will help you determine the right tests for your products and will guide you through interpreting the results.



■ ISO/IEC 17025 Accredited

A	Acrylamide		\$210.00	
	Aflatoxin	Aflatoxin B1, B2, G1 and G2	\$134.00	
	Aldehyde Profile		\$350.00	
	Allulose		\$255.00	
	Almond Allergens		\$134.00	
	Alpha-Amylase		\$255.00	
	Alpha-Amylase Inhibitor		\$385.00	
	Alpha-Cyclodextrin in Foods by HPLC		\$255.00	
	Alpha-Cyclodextrin in Foods by CODEX Fiber		\$520.00	
	Alpha-Galactosidase		\$255.00	
	■ Aluminum	ICP-MS	\$52.00	
	Amino Acid Profile - Acid Hydrolyzed Amino Acids		\$300.00	
	Amino Acid Profile - Base Hydrolyzed Amino Acids	Tryptophan	\$210.00	
	Amino Acid Profile - Performic Acid Oxidation Amino Acids	Cysteine/Methionine	\$210.00	
	Amino Acid Profile - Physiologically Free Amino Acids		\$155.00	
	Amyloglucosidase (AMG)		\$255.00	
	Amylose/Amylopectin		\$255.00	
	Anisidine Value (in Foods)		\$255.00	
	Anisidine Value (in Oils)		\$125.00	
	Anthocyanins		\$255.00	
	■ Antimony	ICP-MS	\$52.00	
	Antioxidants (Fats and Oils)		\$180.00	
	Antioxidants (Total)		\$268.00	
	■ Arsenic	ICP-MS	\$52.00	
	■ Ash		\$21.00	
	Ash by Conductivity		\$155.00	
	B	■ Barium	ICP-MS	\$52.00
Beta-Amylase			\$255.00	
Beta-Carotene			\$93.00	
Beta-Glucan			\$129.00	
Beta-Glucanase			\$255.00	
■ Boron		ICP-MS	\$52.00	
Brix			\$62.00	
C		■ Cadmium	ICP-MS	\$52.00
		■ Calcium	ICP-OES	\$34.00
		Calories by calculation		no charge
	Carbohydrates by calculation		no charge	
	Carotenoids		\$93.00	
	Chloride		\$52.00	
	■ Cholesterol		\$134.00	
	Chromatograms		\$25.00	
	■ Chromium	ICP-MS	\$52.00	

This catalog does not encompass all of Medallion's testing capabilities. Call or e-mail to inquire about analyses not listed. Prices and offerings are subject to change without notice.

Prices effective through December 2018

■ ISO/IEC 17025 Accredited

	■ Cobalt	ICP-MS	\$52.00
	Color Analysis (Hunter)		\$62.00
	Color Analysis (Lovibond)		\$62.00
	Color Analysis (Minolta)		\$62.00
	Consultation		\$250.00
	■ Copper	ICP-OES	\$34.00
D	Density		\$62.00
	Deoxynivalenol (Vomitoxins)	DON, Vomatoxin	\$134.00
	Dialyzable Minerals by ICP-AES		\$515.00
	Differential Scanning Calorimetry (DSC)	Call for consultation	\$255.00
E	Egg Allergens		\$134.00
	Emulsion Stability	Lumifuge	\$200.00
	Englyst Starch	Glycemic Response	\$515.00
F	Falling Number		\$67.00
	Farinograph		\$191.00
	■ Fat by Gas Chromatography	includes fatty acid profile (C4-C24)	\$193.00
	■ Fat by Gravimetric	Acid Hydrolysis, Acid/Base Hydrolysis or Roesde-Gottlieb Method	\$46.00
	Fiber (Crude)		\$57.00
	Fiber (Total - CODEX Definition)		\$405.00
	■ Fiber (Total - Gravimetric)		\$177.00
	Fiber (Total, Soluble, Insoluble - CODEX definition)		\$455.00
	■ Fiber (Total, Soluble, Insoluble - Gravimetric)		\$214.00
	Fiber (Rapid Integrated Method)		\$450.00
	Folic Acid (Folates) by LCMS	Vitamin B9	\$140.00
	Folic Acid (Folates) by Microbiological Method	Vitamin B9	\$140.00
	Free Amino Nitrogen		\$155.00
	■ Free Fatty Acids		\$72.00
	Freeze Drying (Lyophilization) Sample Preparation		*call for pricing
	Fructans	Inulin/Fructooligosaccharides	\$295.00
	Fumonisin	B1 and B2	\$134.00
G	Glucuronic/Galacturonic Acid		\$255.00
	Glutamine and Ammonia		\$255.00
	■ Gluten/Gliadin Allergens		\$134.00
	Glycemic Response (Englyst)		\$515.00
H	Headspace Gases	N, O, CO ₂ , Methane and Ethylene	\$144.00
	■ Heavy Metals Package	Arsenic (As), Cadmium (Cd), Lead (Pb), Mercury	\$215.00
	Hexanal		\$93.00
I	Identification by EDS	Call for consultation	\$250.00/hour
	Identification by FTIR	Call for consultation	\$250.00/hour
	Identification by Microscopy	Call for consultation	\$250.00/hour
	Identification by SEM	Call for consultation	\$250.00/hour
	Inulin	Fructans/Fructooligosaccharides	\$295.00



	Invertase		\$255.00
	Iodine		\$220.00
J	■ Iron	ICP-OES	\$34.00
	Jelly Bloom		\$103.00
L	■ Lead	ICP-MS	\$52.00
	Lipase		\$255.00
	Lipoxygenase		\$255.00
	Lycopene		\$108.00
M	■ Magnesium	ICP-OES	\$34.00
	■ Manganese	ICP-OES	\$34.00
	■ Mercury		\$88.00
	■ Metals Screen I	Calcium (Ca), Iron (Fe), Potassium (K) and Sodium (Na)	\$90.00
	■ Metals Screen II	Metals I plus Copper (Cu), Magnesium (Mg), Manganese (Mn), Phosphorus (P) and Zinc (Zn)	\$140.00
	Milk Allergens		\$134.00
	Moisture		\$21.00
	Moisture (Karl Fisher Titration)		\$52.00
	Moisture Isotherm		\$268.00
	■ Molybdenum	ICP-MS	\$52.00
	Myo-Inositol		\$255.00
N	■ Niacin	Vitamin B3	\$72.00
	■ Nickel	ICP-MS	\$52.00
	Nitrogen		\$27.00
	Non-Routine Disposal		\$50.00
	Nutritional Analysis (current labeling guidelines)		\$925.00
	Nutritional Analysis (proposed 2020 labeling guidelines)		\$1,315.00
	Nutritional Analysis with Label (current labeling guidelines)		\$945.00
	Nutritional Analysis with Label (proposed 2020 labeling guidelines)		\$1,335.00
O	Ochratoxin	Ochratoxin A	\$134.00
	■ OSI (Oxidative Stability Index)		\$118.00
P	■ Pantothenic Acid	Vitamin B5	\$112.00
	Particle Size Distribution (Alpine Granulation)		\$40.00
	Particle Size Distribution (Microtrac)		\$155.00
	Particle Size Distribution (Rotap)		\$62.00
	Peanut Allergens		\$134.00
	Pectin		\$255.00
	Peroxidase	Peroxidase	\$255.00
	■ Peroxide Value		\$72.00
	Pesticide Analyte Confirmation		\$200.00
	■ Pesticide Multi-Residue Analysis (MRA) - basic screen		\$460.00
	■ Pesticide Multi-Residue Analysis (MRA) - expanded screen		\$620.00
	■ Pesticide Multi-Residue Analysis (MRA) - organic screen		\$280.00

This catalog does not encompass all of Medallion's testing capabilities. Call or e-mail to inquire about analyses not listed. Prices and offerings are subject to change without notice.

Prices effective through December 2018

medallionlabs.com

08

■ ISO/IEC 17025 Accredited

	pH (direct or in solution)		\$21.00
	Phenolics	Bound, Free, Total	\$255.00
	■ Phosphorus	ICP-OES	\$34.00
	Physical Testing by the Hour	Call for consultation	\$200.00
	Phytic Acid		\$255.00
	Polyphenol Oxidase		\$255.00
	■ Potassium	ICP-OES	\$34.00
	Processing - Basic	Includes the handling and processing of a single sample; composite involving no grinding, composite involving limited grinding, or a composite involving full grinding	\$8.00
	Processing - Complex	Composite involving multiple components (3 or more samples to combine) OR a single sample involving special instructions (examples: shelling nuts, peeling, deboning, contents only capsule, multiple component entrees) Charged in 15 minute increments	\$100.00/hour
	Protease	Fungal, Papain, Pepsin	\$255.00
	■ Protein (Dumas)		\$27.00
	Proximate Analysis (with fat by GC)		\$262.00
	Proximate Analysis (with fat by gravimetric)		\$115.00
R	Refractive Index		\$62.00
	Resistant Oligosaccharides with Total Dietary Fiber		\$395.00
	Resistant Oligosaccharides with Total, Soluble & Insoluble Dietary Fiber		\$440.00
	Resistant Starch	RS2 and RS3	\$149.00
	■ Riboflavin	Vitamin B2	\$70.00
S	■ Selenium	ICP-MS	\$52.00
	Short Chain Fructooligosaccharides (scFOS)		\$113.00
	Silicon	ICP-MS	\$52.00
	Silver		\$52.00
	Skatole		\$255.00
	Soda by GC		\$93.00
	■ Sodium	ICP-OES	\$34.00
	Sodium Chloride (Salt) - Total		\$52.00
	Soy Flour Allergens		\$134.00
	Specific Gravity		\$62.00
	Starch		\$108.00
	Starch Damage	Wheat Flour only	\$82.00
	Starch Gelatinization	Colorimetric Assay	\$386.00
	Sucralose		\$123.00
	■ Sugar Profile by HPLC	Fructose, Galactose, Glucose, Lactose, Maltose and Sucrose	\$106.00
	Sugar Profile by HPLC - High Salt Samples		\$115.00
	Sugar/Sugar Alcohol Screen by GC	Sugar Alcohols plus Simple Sugars	\$283.00
T	T2 Toxin		\$134.00
	Texture Analysis	Call for consultation	\$103.00

This catalog does not encompass all of Medallion's testing capabilities. Call or e-mail to inquire about analyses not listed. Prices and offerings are subject to change without notice.



	■ Thiamin	Vitamin B1	\$85.00
	Thiobarbituric Acid Value (in Foods)		\$258.00
	Thiobarbituric Acid Value (in Oils)		\$120.00
	■ Tin	ICP-MS	\$52.00
	Titrateable Acidity		\$52.00
	Tocopherols and Tocotrienols		\$180.00
	Trypsin Inhibitor		\$386.00
V	Viscosity by Brookfield Viscometer	Call for consultation	\$310.00
	Viscosity by RapidVisco Analyzer	Call for consultation	\$310.00
	Viscosity by Rheology Property Characterization	Call for consultation	\$310.00
	Vitamin A (Beta-Carotene)		\$93.00
	■ Vitamin A (Retinol)		\$93.00
	■ Vitamin B1	Thiamin	\$85.00
	■ Vitamin B12	Cobalamin	\$139.00
	■ Vitamin B12	Methylcobalmin	\$255.00
	■ Vitamin B2	Riboflavin	\$70.00
	■ Vitamin B3	Niacin	\$72.00
	■ Vitamin B5	Pantothenic Acid	\$112.00
	■ Vitamin B6	Pyridoxine	\$107.00
	■ Vitamin B9	Folic Acid (LCMS)	\$140.00
	■ Vitamin B9	Folic Acid (Microbiological Method)	\$140.00
	■ Vitamin C		\$63.00
	■ Vitamin D		\$268.00
	■ Vitamin E		\$107.00
	Vitamin K		\$390.00
W	Water Activity		\$46.00
	Water Holding Capacity		\$72.00
	Water Vapor Transmission Rate (WVTR)		\$309.00
X	Xylanase		\$255.00
Z	Zearalenone		\$134.00
	■ Zinc	ICP-OES	\$34.00

Effective January 1, 2020

On May 20, 2016, the FDA announced the new Nutrition Facts label for packaged foods to reflect new scientific information, including the link between diet and chronic diseases such as obesity and heart disease. The new label will make it easier for consumers to make better informed food choices. FDA published the final rules in the Federal Register on May 27, 2016.*

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per 2/3 cup	
Calories	230
% DV*	
12%	Total Fat 8g
5%	Saturated Fat 1g
	<i>Trans Fat</i> 0g
0%	Cholesterol 0mg
7%	Sodium 160mg
12%	Total Carbs 37g
14%	Dietary Fiber 4g
	Sugars 1g
	Added Sugars 0g
	Protein 3g
10%	Vitamin D 2 mcg
20%	Calcium 260mg
45%	Iron 8mg
5%	Potassium 235mg
* Footnote on Daily Values (DV) and calories reference to be inserted here.	

WHAT'S NEW?

CHANGES TO THE NUTRITION FACTS LABEL

HOW DOES THIS IMPACT TESTING?

- ✓ Recommended Fiber Method: AOAC 2011.25
- ✓ Vitamin D and Potassium are added
- ✓ Vitamins A and C are removed
- ✓ New requirements for the keeping, maintenance and access of records for added sugars, dietary fiber, Vitamin E, and folic acid
- ✓ Calorie reduction by dietary fiber is calculated with measurements from AOAC 2011.25
- ✓ Measurement units change for Vitamins A, D and E



■ ISO/IEC 17025 Accredited

CARBOHYDRATES			
Beta-Glucan			\$129.00
Englyst Starch	Glycemic Response		\$515.00
Fiber (Crude)			\$57.00
Fiber (Rapid Integrated Method)			\$450.00
Fiber (Total - CODEX Definition)			\$405.00
■ Fiber (Total - Gravimetric)			\$177.00
Fiber (Total, Soluble, Insoluble - CODEX definition)			\$455.00
■ Fiber (Total, Soluble, Insoluble - Gravimetric)			\$214.00
Fructans	Inulin/Fructooligosaccharides		\$295.00
Inulin	Fructans/Fructooligosaccharides		\$295.00
Resistant Oligosaccharides with Total Dietary Fiber			\$395.00
Resistant Oligosaccharides with Total, Soluble, & Insoluble Dietary Fiber			\$440.00
Resistant Starch	RS2 and RS3		\$149.00
Starch			\$108.00
Starch Damage	Wheat Flour only		\$82.00
Sucralose			\$123.00
■ Sugar Profile by HPLC	Fructose, Galactose, Glucose, Lactose, Maltose and Sucrose		\$106.00
Sugar Profile by HPLC - High Salt Samples			\$115.00
Sugar/Sugar Alcohol Screen by GC	Sugar Alcohols plus Simple Sugars		\$283.00
ENZYMES			
Alpha-Amylase			\$255.00
Alpha-Amylase Inhibitor			\$385.00
Alpha-Galactosidase			\$255.00
Amyloglucosidase (AMG)			\$255.00
Beta-Amylase			\$255.00
Invertase			\$255.00
Lipase			\$255.00
Lipoxygenase			\$255.00
Peroxidase	Peroxidase		\$255.00
Polyphenol Oxidase			\$255.00
Protease	Fungal, Papain, Pepsin		\$255.00
Trypsin Inhibitor			\$386.00
Xylanase			\$255.00
FEES			
Chromatograms			\$25.00
Consultation			\$250.00
Non-Routine Disposal			\$50.00

This catalog does not encompass all of Medallion's testing capabilities. Call or e-mail to inquire about analyses not listed. Prices and offerings are subject to change without notice.



■ ISO/IEC 17025 Accredited

Processing - Basic	Includes the handling and processing of a single sample; composite involving no grinding, composite involving limited grinding, or a composite involving full grinding	\$8.00
Processing - Complex	Composite involving multiple components (3 or more samples to combine) OR a single sample involving special instructions (examples: shelling nuts, peeling, deboning, contents only capsule, multiple component entrees) Charged in 15 minute increments	\$100.00/hour
FOOD SAFETY: ALLERGENS		
Almond Allergens		\$134.00
Egg Allergens		\$134.00
■ Gluten/Gliadin Allergens		\$134.00
Milk Allergens		\$134.00
Peanut Allergens		\$134.00
Soy Flour Allergens		\$134.00
FOOD SAFETY: CONTAMINANTS; MINERAL, INORGANIC & TRACE ANALYSIS		
Acrylamide		\$210.00
■ Antimony	ICP-MS	\$52.00
■ Arsenic	ICP-MS	\$52.00
■ Cadmium	ICP-MS	\$52.00
Identification by EDS	Call for consultation	\$250.00/hour
Identification by FTIR	Call for consultation	\$250.00/hour
Identification by Microscopy	Call for consultation	\$250.00/hour
Identification by SEM	Call for consultation	\$250.00/hour
■ Heavy Metals Package	Arsenic (As), Cadmium (Cd), Lead (Pb), Mercury	\$215.00
■ Lead	ICP-MS	\$52.00
■ Mercury		\$88.00
Silicon	ICP-MS	\$52.00
FOOD SAFETY: MYCOTOXINS		
Aflatoxin	Aflatoxin B1, B2, G1 and G2	\$134.00
Deoxynivalenol (Vomitoxins)	DON, Vomatoxin	\$134.00
Fumonisin	B1 and B2	\$134.00
Ochratoxin	Ochratoxin A	\$134.00
T2 Toxin		\$134.00
Zearalenone		\$134.00
FOOD SAFETY: PESTICIDES		
Pesticide Analyte Confirmation		\$200.00
■ Pesticide Multi-Residue Analysis (MRA) - basic screen		\$460.00
■ Pesticide Multi-Residue Analysis (MRA) - expanded screen		\$620.00
■ Pesticide Multi-Residue Analysis (MRA) - organic screen		\$280.00
LIPIDS, FATS & OIL STABILITY		
■ Cholesterol		\$134.00
Color Analysis (Lovibond)		\$62.00
■ Fat by Gas Chromatography	includes fatty acid profile (C4-C24)	\$193.00



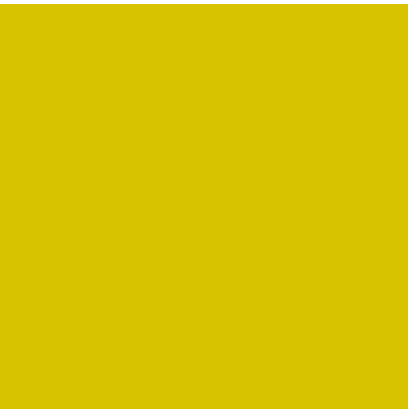
■ Fat by Gravimetric	Acid Hydrolysis, Acid/Base Hydrolysis or Roesde-Gottlieb Method	\$46.00
■ Free Fatty Acids		\$72.00
Hexanal		\$93.00
■ OSI (Oxidative Stability Index)		\$118.00
■ Peroxide Value		\$72.00
Tocopherols and Tocotrienols		\$180.00
MINERAL, INORGANIC & TRACE ANALYSIS		
■ Aluminum	ICP-MS	\$52.00
■ Antimony	ICP-MS	\$52.00
■ Arsenic	ICP-MS	\$52.00
■ Barium	ICP-MS	\$52.00
■ Boron	ICP-MS	\$52.00
■ Cadmium	ICP-MS	\$52.00
■ Calcium	ICP-OES	\$34.00
Chloride		\$52.00
■ Chromium	ICP-MS	\$52.00
■ Cobalt	ICP-MS	\$52.00
■ Copper	ICP-OES	\$34.00
■ Heavy Metals Package	Arsenic (As), Cadmium (Cd), Lead (Pb), Mercury	\$215.00
■ Iron	ICP-OES	\$34.00
■ Lead	ICP-MS	\$52.00
■ Magnesium	ICP-OES	\$34.00
■ Manganese	ICP-OES	\$34.00
■ Mercury		\$88.00
■ Metals Screen I	Calcium (Ca), Iron (Fe), Potassium (K) and Sodium (Na)	\$90.00
■ Metals Screen II	Metals I plus Copper (Cu), Magnesium (Mg), Manganese (Mn), Phosphorus (P) and Zinc (Zn)	\$140.00
■ Molybdenum	ICP-MS	\$52.00
■ Nickel	ICP-MS	\$52.00
■ Phosphorus	ICP-OES	\$34.00
■ Potassium	ICP-OES	\$34.00
■ Selenium	ICP-MS	\$52.00
Silicon	ICP-MS	\$52.00
Silver		\$52.00
■ Sodium	ICP-OES	\$34.00
■ Tin	ICP-MS	\$52.00
■ Zinc	ICP-OES	\$34.00
NUTRITIONAL LABELING		
■ Ash		\$21.00
Beta-Carotene		\$93.00
■ Calcium	ICP-OES	\$34.00
Calories by calculation		no charge

This catalog does not encompass all of Medallion's testing capabilities. Call or e-mail to inquire about analyses not listed. Prices and offerings are subject to change without notice.

■ ISO/IEC 17025 Accredited

Carbohydrates by calculation		no charge
■ Cholesterol		\$134.00
■ Fat by Gas Chromatography	includes fatty acid profile (C4-C24)	\$193.00
■ Fat by Gravimetric	Acid Hydrolysis, Acid/Base Hydrolysis or Roesde-Gottlieb Method	\$46.00
Fiber (Total - CODEX Definition)		\$405.00
■ Fiber (Total - Gravimetric)		\$177.00
Fiber (Total, Soluble, Insoluble - CODEX definition)		\$455.00
■ Fiber (Total, Soluble, Insoluble - Gravimetric)		\$214.00
Folic Acid (Folates) by LCMS	Vitamin B9	\$140.00
Folic Acid (Folates) by Microbiological Method	Vitamin B9	\$140.00
■ Iron	ICP-OES	\$34.00
■ Metals Screen I	Calcium (Ca), Iron (Fe), Potassium (K) and Sodium (Na)	\$90.00
■ Metals Screen II	Metals I plus Copper (Cu), Magnesium (Mg), Manganese (Mn), Phosphorus (P) and Zinc (Zn)	\$140.00
Moisture		\$21.00
■ Niacin	Vitamin B3	\$72.00
Nutritional Analysis (current labeling guidelines)		\$925.00
Nutritional Analysis (proposed 2020 labeling guidelines)		\$1,315.00
Nutritional Analysis with Label (current labeling guidelines)		\$945.00
Nutritional Analysis with Label (proposed 2020 labeling guidelines)		\$1,335.00
■ Pantothenic Acid	Vitamin B5	\$112.00
■ Phosphorus	ICP-OES	\$34.00
■ Potassium	ICP-OES	\$34.00
■ Protein (Dumas)		\$27.00
Proximate Analysis (with fat by GC)		\$262.00
Proximate Analysis (with fat by gravimetric)		\$115.00
■ Riboflavin	Vitamin B2	\$70.00
Sodium	ICP-OES	\$34.00
■ Sugar Profile by HPLC	Fructose, Galactose, Glucose, Lactose, Maltose and Sucrose	\$106.00
Sugar/Sugar Alcohol Screen by GC	Sugar Alcohols plus Simple Sugars	\$283.00
■ Thiamin	Vitamin B1	\$85.00
Vitamin A (Beta-Carotene)		\$93.00
■ Vitamin A (Retinol)		\$93.00
■ Vitamin B1	Thiamin	\$85.00
■ Vitamin B2	Riboflavin	\$70.00
■ Vitamin B3	Niacin	\$72.00
■ Vitamin B5	Pantothenic Acid	\$112.00
■ Vitamin B6	Pyridoxine	\$107.00
■ Vitamin B9	Folic Acid (LCMS)	\$140.00
■ Vitamin B9	Folic Acid (Microbiological Method)	\$140.00
■ Vitamin B12	Cobalamin	\$139.00

This catalog does not encompass all of Medallion's testing capabilities. Call or e-mail to inquire about analyses not listed. Prices and offerings are subject to change without notice.



■ ISO/IEC 17025 Accredited

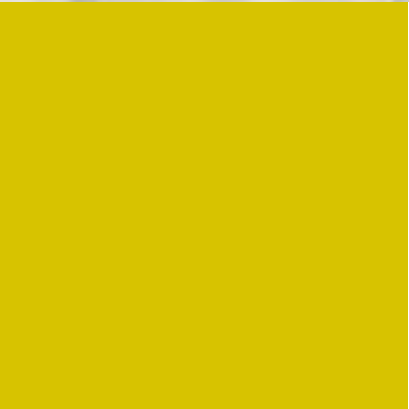
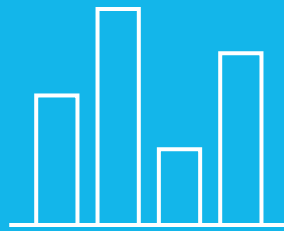
■ Vitamin B12	Methylcobalmin	\$255.00
■ Vitamin C		\$63.00
■ Vitamin D		\$268.00
■ Vitamin E		\$107.00
Vitamin K		\$390.00
■ Zinc	ICP-OES	\$34.00
PHYSICAL TESTING		
Brix		\$62.00
Color Analysis (Hunter)		\$62.00
Color Analysis (Lovibond)		\$62.00
Color Analysis (Minolta)		\$62.00
Density		\$62.00
Differential Scanning Calorimetry (DSC)	Call for consultation	\$255.00
Emulsion Stability	Lumifuge	\$200.00
Falling Number		\$67.00
Farinograph		\$191.00
Jelly Bloom		\$103.00
Particle Size Distribution (Alpine Granulation)		\$40.00
Particle Size Distribution (Microtrac)		\$155.00
Particle Size Distribution (Rotap)		\$62.00
Physical Testing by the Hour	Call for consultation	\$200.00
Refractive Index		\$62.00
Specific Gravity		\$62.00
Texture Analysis	Call for consultation	\$103.00
Viscosity by Brookfield Viscometer	Call for consultation	\$310.00
Viscosity by RapidVisco Analyzer	Call for consultation	\$310.00
Viscosity by Rheology Property Characterization	Call for consultation	\$310.00
Water Holding Capacity		\$72.00
PROTEIN		
Amino Acid Profile - Acid Hydrolyzed Amino Acids		\$300.00
Amino Acid Profile - Base Hydrolyzed Amino Acids	Tryptophan	\$210.00
Amino Acid Profile - Performic Acid Oxidation Amino Acids	Cysteine/Methionine	\$210.00
Amino Acid Profile - Physiologically Free Amino Acids		\$155.00
■ Protein (Dumas)		\$27.00
SHELF LIFE		
Aldehyde Profile		\$350.00
Anisidine Value (in Foods)		\$255.00
Anisidine Value (in Oils)		\$125.00
■ Free Fatty Acids		\$72.00
Moisture Isotherm		\$268.00
■ Peroxide Value		\$72.00
pH (direct or in solution)		\$21.00



Thiobarbituric Acid Value (in Foods)		\$258.00
Thiobarbituric Acid Value (in Oils)		\$120.00
Water Activity		\$46.00
Water Vapor Transmission Rate (WVTR)		\$309.00
SPECIALIZED ASSAYS		
Allulose		\$255.00
Alpha-Amylase		\$255.00
Alpha-Amylase Inhibitor		\$385.00
Alpha-Cyclodextrin in Foods by CODEX Fiber		\$520.00
Alpha-Cyclodextrin in Foods by HPLC		\$255.00
Alpha-Galactosidase		\$255.00
Amyloglucosidase (AMG)		\$255.00
Amylose/Amylopectin		\$255.00
Ash by Conductivity		\$155.00
Beta-Amylase		\$255.00
Beta-Glucanase		\$255.00
Dialyzable Minerals by ICP-AES		\$515.00
Fiber (Rapid Integrated Method)		\$450.00
Free Amino Nitrogen		\$155.00
Freeze Drying (Lyophilization) Sample Preparation		*call for pricing
Glucuronic/Galacturonic Acid		\$255.00
Glutamine and Ammonia		\$255.00
Glycemic Response (Englyst)		\$515.00
Headspace Gases	N, O, CO2, Methane and Ethylene	\$144.00
Invertase		\$255.00
Iodine		\$220.00
Lipase		\$255.00
Lipoxygenase		\$255.00
Myo-Inositol		\$255.00
Pectin		\$255.00
Peroxidase	Peroxidase	\$255.00
Phenolics	Bound, Free, Total	\$255.00
Phytic Acid		\$255.00
Polyphenol Oxidase		\$255.00
Protease	Fungal, Papain, Pepsin	\$255.00
Short Chain Fructooligosaccharides (scFOS)		\$113.00
Skatole		\$255.00
Starch Gelatinization	Colorimetric Assay	\$386.00
Trypsin Inhibitor		\$386.00
Xylanase		\$255.00
VITAMINS		
Beta-Carotene		\$93.00

■ ISO/IEC 17025 Accredited

Carotenoids		\$93.00
Folic Acid (Folates) by LCMS	Vitamin B9	\$140.00
Folic Acid (Folates) by Microbiological Method	Vitamin B9	\$140.00
■ Niacin	Vitamin B3	\$72.00
■ Pantothenic Acid	Vitamin B5	\$112.00
■ Riboflavin	Vitamin B2	\$70.00
Thiamin	Vitamin B1	\$85.00
Vitamin A (Beta-Carotene)		\$93.00
■ Vitamin A (Retinol)		\$93.00
■ Vitamin B1	Thiamin	\$85.00
■ Vitamin B12	Cobalamin	\$139.00
■ Vitamin B12	Methylcobalmin	\$255.00
■ Vitamin B2	Riboflavin	\$70.00
■ Vitamin B3	Niacin	\$72.00
■ Vitamin B5	Pantothenic Acid	\$112.00
■ Vitamin B6	Pyridoxine	\$107.00
■ Vitamin B9	Folic Acid (LCMS)	\$140.00
■ Vitamin B9	Folic Acid (Microbiological Method)	\$140.00
■ Vitamin C		\$63.00
■ Vitamin D		\$268.00
■ Vitamin E		\$107.00
Vitamin K		\$390.00

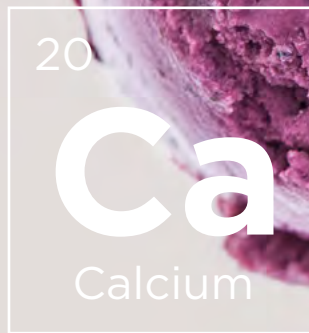


22

Ti

Titanium

MICROBIOLOGY



Foodborne illnesses caused by pathogenic bacteria affect millions of people each year. These microorganisms also contribute to spoilage and decreased product shelf life.

To preserve the integrity of your food product, microbiological control is essential. That's where Medallion Labs comes in. Our scientists understand the importance of keeping your products safe for consumers.

As such, this team assesses microbiological contamination of food products for indicator and spoilage organisms. Constantly evaluating and incorporating advances in methodology to our analysis programs, these experts are able to deliver the reliable, actionable data you need to maintain the safety of your product.





■ ISO/IEC 17025 Accredited

A	■ Aerobic Plate Count		\$18.00
	Anaerobic Plate Count		\$21.00
B	Bacillus cereus		\$20.00
C	■ Coliforms		\$21.00
	■ Coliforms (High Sensitivity Petrifilm)		\$21.00
E	■ E. coli		\$21.00
	Enterobacteriaceae		\$25.00
L	Lactic Acid Bacteria		\$26.00
	Listeria Confirmation		\$108.00
M	■ Listeria Genus		\$36.00
	Listeria Genus (composite)		\$43.00
	■ Listeria Monocytogenes		\$36.00
	Listeria Monocytogenes (composite)		\$43.00
	Mesophilic Aerobic Sporeformers		\$54.00
S	Mesophilic Anaerobic Sporeformers		\$54.00
	■ Mold		\$18.00
	Probiotic Testing	Call for consultation	*call for pricing
S	■ Salmonella (Composite)		\$43.00
	Salmonella		\$33.00
	Staphylococcus aureus		\$36.00
T	Thermophilic Aerobic Sporeformers		\$62.00
	Thermophilic Anaerobic Sporeformers		\$62.00
Y	■ Yeast		\$18.00
	■ Yeast and Mold		\$18.00

SUBMIT A SAMPLE

Everything we do at Medallion Labs, from our testing approach to the way we collect samples is designed to maintain the integrity of your results. Please follow the instructions below to ensure we're able to deliver accurate data you can use to bring your product to market.

THE FORMS

Depending on which tests you'd like our scientists to complete, you'll need to fill out the Analytical, Nutritional or Food Contaminants request form(s) found on our website. Submit the completed form(s) along with your samples to:

Medallion Labs

9000 Plymouth Ave. N. - Wing 5
Minneapolis, MN 55427



Ti
Titanium

SAMPLE COLLECTION AND PREPARATION

WHEN ASSEMBLING YOUR PRODUCT FOR TESTING, PLEASE USE THE FOLLOWING GUIDELINES:

- Collect a sample that is well-blended and homogenous.
- Include specific grinding, handling or composite instructions with the order.
- Include sample matrix/composition descriptions and estimates on the submittal form.

Note: Medallion Labs cannot accept unidentified samples.

Please contact Medallion Labs for guidance on an appropriate sample size for your submission.

SHIPPING YOUR SAMPLE

TO ENSURE THE INTEGRITY AND SECURITY OF SAMPLES SENT TO MEDALLION, WE ASK THAT OUR CUSTOMERS OBSERVE THE FOLLOWING GUIDELINES WHEN SHIPPING SAMPLES:

- Secure each food sample in its own container. Seal each sample package completely to prevent leakage. *This is very important to prevent cross-contamination.*
- Use packing materials that are strong enough to travel without damage or leakage.
- For samples needing refrigeration, please package and ship them appropriately and clearly mark “refrigerate” on the outside of the package to ensure continuous refrigeration.
- Label each sample individually with the identification you would like included on the final report. *CAUTION: Do not use magic marker for labeling pesticide residue samples. This will contaminate the matrix.*
- Enclose a Medallion Analytical, Nutritional or Food Contaminants submission form(s) with sample identifiers and matrices, purchase order and analyses you would like performed on each sample.
- If you would like your samples or shipping coolers sent back to you, please provide your UPS or FedEx shipping number or include a return label with your product.
- Additional fees may apply for sample return or for special disposal.
- If at all possible, please ship your samples to arrive during the business week (Monday - Friday).



SAMPLE PRIVACY

At Medallion Labs, we understand how important privacy is to our customers, which is exactly why we've made it a priority to provide full confidentiality to all of our partners over the past four decades. We've achieved this by establishing not only the right systems, but also the right team to oversee the handling of your product. The graph below highlights how we preserve the anonymity and integrity of your samples.

1 MEDALLION SAMPLE ENTRY	Samples are received and sorted by Medallion personnel by noon for most shipping companies, or samples are dropped off directly.	Samples are prioritized based on requested turnaround time and analysis. The customer is contacted via email or phone if clarification is needed.	Samples are entered into our Laboratory Information Management System (LIMS), each sample is labeled with a unique Medallion ID, and a sample receipt notification is emailed.
/// FIREWALL ///			
2 SAMPLE HANDLING FACILITY	Samples are homogeneously prepared as a composite or individually per the customer's request.	Samples are replaced into sealed cups and stored in appropriate condition. If possible, a portion of the sample is retained in our library for 60 days.	Samples are delivered to laboratories and stored in the appropriate temperature condition until analyzed.
3 LABORATORY TESTING	Samples are pulled from storage, tested by the approved method and then reported.	All analysis is stored and results are calculated through LIMS.	Test results are reviewed at the analyst level. Once the entire submission is complete it is promoted to a final library approval by a designated approver.
/// FIREWALL ///			
4 REPORTING OF RESULTS	After the entire submission is approved a final report is emailed to the Customer Service team and then sent to the customer via email or fax.	Invoices for final reports are mailed to the customer the following week.	Customer questions regarding are handled by the Customer Service team, who can be reached at 1800-245-5615 or info@medlabs.com.

FEES

PROCESSING - BASIC	Includes the handling and processing of a single sample; composite involving no grinding, composite involving limited grinding, or a composite involving full grinding	\$8.00
PROCESSING - COMPLEX	Composite involving multiple components (3 or more samples to combine) OR a single sample involving special instructions (examples: shelling nuts, peeling, deboning, contents only capsule, multiple component entrees) Charged in 15 minute increments	\$100.00/hour
CHROMATOGRAMS		\$25.00
CONSULTATION		\$250.00/hour
NON-ROUTINE DISPOSAL		\$50.00



Standard Terms and Conditions

JUNE 2012

All services provided by Medallion Laboratories (“Medallion”) are subject to the terms and conditions stated herein. As our client, you (“Client”) understand and agree that placement of any order for our services constitutes acceptance of the terms and conditions stated herein. To the extent that any Client order contains any terms or conditions that vary from the terms and conditions stated herein, all such additional or varying terms and conditions shall be of no force or effect, and shall not be part of the Client-Medallion relationship or contract, even if Medallion performs the requested service.

CONFIDENTIALITY: Confidentiality is maintained in all interactions with Clients. Appropriate confidentiality agreements are signed willingly. If information is subpoenaed and released through the operation of any judicial, regulatory, or similar process, the Client is notified. In turn, the Client agrees to respect this relationship of trust. The Client agrees it will not use Medallion’s name or data (or the name or data of any General Mills entity) in any manner which might cause harm to Medallion’s (or General Mills’) reputation and/or business. Under no circumstances is the name of Medallion (or of any of its General Mills affiliates) to be published, either alone or in association with that of any other party, without prior written approval.

PAYMENT TERMS: Payment terms are Net 30 days. Prices are subject to change without notice.

BILLING: All fees or bills are charged directly to the Client, unless a third party has been authorized via a signed statement indicating payment responsibility. It is assumed that the paperwork submitted with a sample describes the testing desired. If changes are made after the originally requested testing is initiated or completed, the Client must accept payment responsibility. Please notify Medallion immediately if changes in testing are necessary.

SAMPLE SUBMISSION: Samples should be collected, prepared and shipped according to proper procedures and accompanied by a Medallion request form for the desired analysis. Sample preparation, collection, and shipping instructions, and Medallion request forms are available online at www.Medallionlabs.com. Please include all information requested on the form, and use the newest forms as available on the Medallion website to avoid processing delays. Samples will typically be held for two (2) months, except: (1) where samples have been utilized for testing and thereby consumed; (2) where micro samples are destroyed; (3) where suspect samples are autoclaved; (4) where samples are returned early at the request of the Client; (5) where storage will compromise the integrity of the sample; or (6) where circumstances exist that prevent samples from being held for the typical two (2) month time period.

HAZARDOUS SUBSTANCES AND PATHOGENS: Any sample containing or suspected to contain a pathogen or substance that is considered hazardous must be clearly identified as such on the container and communicated to Medallion before shipping. Medallion reserves the right to refuse any sample that may pose a risk to employees. Return or destruction of such samples is at Client’s expense.

ANALYSIS: Medallion strives to complete all analyses within the turnaround times specified on our website. Medallion also makes every attempt to deliver rush turnaround in a compressed time, which is also specified on our website. In most cases, rush turnaround is five working days unless the test itself requires a longer time for completion. Rush analysis is offered contingent upon pre-notification and approval of Medallion. However, a rush fee of 100% surcharge of the list fee will be added to the invoice for each analysis completed in five or fewer working days (or when the test itself requires substantial time for completion, a compressed timeline agreed upon in advance) at the request of the Client. Medallion reserves the right to outsource an analysis entirely at Medallion’s expense and without prior notification to Client, unless Client requests otherwise. Reported results relate only to the items tested and test reports shall not be reproduced except in full.

RETEST ANALYSES: Retests performed at the Client’s request may be charged to the Client if the retest confirms the original results. In the event the retest results significantly differ from the original result, the Client will not be charged for the duplicate assay.

LITIGATION: All costs associated with litigation or dispute, including compliance for all document subpoena, for oral or written testimony or preparation of same, or for any other purpose related to work provided by Medallion in connection with analyses/reports performed/completed for the Client, shall be paid by the Client. Such costs include, but are not limited to, hourly charges, travel, accommodations, mileage, counsel, and all other expenses associated with said litigation or dispute.

WARRANTY AND LIMITS OF LIABILITY: Medallion warrants that all services will be performed in a timely manner by competent personnel. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. Any services performed by Medallion under proper technical direction by Client, which are determined by Client to have been performed improperly in light of the above warranty, and which after investigation by Medallion are acknowledged in writing by Medallion’s Managing Director to have been performed improperly, shall be corrected by Medallion without charge to Client, provided that Client provides Medallion with a written request for such correction within two (2) months after Client knew or should reasonably have known of the problem. In no event will Medallion (including its affiliates, i.e., all entities owned, controlled, or under common control with, General Mills, Inc. (collectively, “General Mills”)) be liable for any indirect, consequential, incidental, punitive, or special damages or for acts of negligence that are unintentional in nature, including, without limitation, damages for lost profit, business interruption, or other pecuniary loss, regardless of whether Medallion has been advised of the possibility of such damages. Client further understands and agrees that Medallion’s total liability (including any liability of General Mills) for damages relating to, or arising in connection with, any services provided hereunder, regardless of the form of action or theory of recovery shall not exceed the greater of \$2,500 or the amount paid by the Client for the particular analytical service. Medallion and General Mills accept no legal responsibility for the purpose for which the Client uses the test results or reports, or for any consequence of such use. Medallion and General Mills provide no guidance regarding and accept no legal responsibility for the purpose for which the Client uses the test results or reports, and shall have no legal responsibility for any consequence of such use. Client agrees to indemnify and defend Medallion and General Mills from all claims, damages, liabilities, and expenses relating to Client’s use of Medallion’s services or Client’s marketing, distribution, sale, or other dissemination of Client’s products or services. The allocations of liability in this WARRANTY AND LIMITS OF LIABILITY section represent the agreed and bargained-for understanding between the Client and Medallion. Medallion’s fees for the services provided hereunder reflect such allocations. June 2012

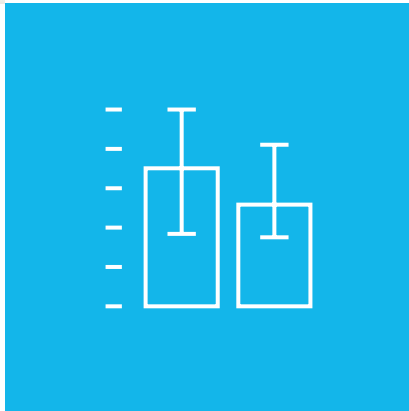


Medallion Labs
FOOD FIRST. SCIENCE FOREMOST.

medallionlabs.com

9000 Plymouth Avenue North | Minneapolis, MN 55427

☎: 800.245.5615 ☎: 763.764.4010



©2018 Medallion Labs is a division of General Mills, Inc.