Stevia

(*Stevia rebaudiana*)

Products and Services

ChromaDex™

setting THE standard

Stevia
(*Stevia rebaudiana*)

ChromaDex offers the tools necessary to provide quality and control of the market. ChromaDex primary goal is to supply industry accepted information, products, and services to every layer of the functional food, pharmaceutical, personal care, and dietary supplement markets.

Please contact us if you need assistance in choosing the right product or service to meet your needs.

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Prices are subject to change without notice.
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Introduction

Stevia is a genus of shrubs that is native to South America and is widely used in both South America and Asia as a sugar substitute. The Stevia leaf contains special glycosides which produce a sweet taste without any calories. These unique properties place Stevia at the front of sweetener development and commercial interest. With all of the attention, countless Stevia based products are poised to enter the market. The products may range from crude Stevia extracts to Reb A which is a highly purified ingredient that contains the best-tasting component of the Stevia leaf.

ChromaDex has developed analytical reference standards and research materials for the individual sweet components of Stevia. These tools are necessary to ensure the consistency and quality of Stevia-based products. ChromaDex reference standards and analytical services are essential for any company that plans on using Stevia extracts or Reb A for consumer applications. Whether you need basic support or comprehensive research and development, ChromaDex Stevia Services offers the expertise your team requires.

The Difference Between Reb A and Stevia Extract

Reb A

- Well-defined, high-purity product composed of rebaudioside A - the best tasting component of the Stevia leaf.
- Quality and composition can be assured.

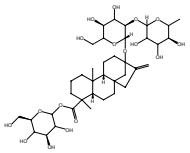
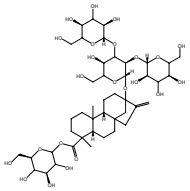
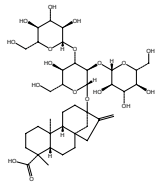
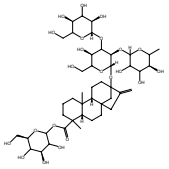
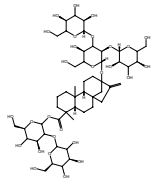
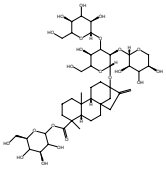
VS

Stevia Extract

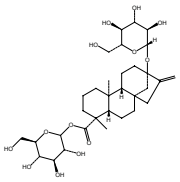
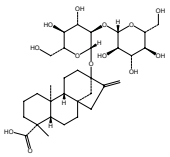
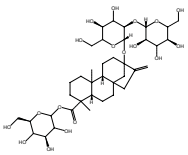
- Crude extract of the Stevia leaf containing multiple glycoside components.

Stevia has been used safely as a sweetener for decades. But crude Stevia is a mixture of many components of the Stevia leaf, including those that do not give a sweet taste. The quality and composition vary widely in the market. Due to this variation and inconsistency in composition, studies of Stevia extracts are difficult to interpret for health and safety implications. Reb A, by contrast, is a well-defined, high-purity product composed of 97%+ rebaudioside A. Because Reb A's quality and composition can be assured – whether you're studying it or consuming it, you know exactly what's in it.

STEVIA REFERENCE STANDARDS

Product Description	Product ID	Qty	Price
 **Dulcoside A** Grade: P CAS#: [64432-06-0] Chemical Formula: $C_{38}H_{60}O_{17}$ FW: 788.87	ASB-00004949-005 ASB-00004949-010	5mg 10mg	Call for a Quote
 **Rebaudioside A** Grade: P CAS#: [58543-16-1] Chemical Formula: $C_{44}H_{70}O_{23}$ FW: 967.01	ASB-00018226-005 ASB-00018226-010 ASB-00018226-050 ASB-00018226-250 ASB-00018226-001	5mg 10mg 50mg 250mg 1g	
 **Rebaudioside B** Grade: P CAS#: [58543-17-2] Chemical Formula: $C_{38}H_{60}O_{18}$ FW: 804.87	ASB-00018227-005 ASB-00018227-010 ASB-00018227-025	5mg 10mg 25mg	
 **Rebaudioside C** Grade: P CAS#: [63550-99-2] Chemical Formula: $C_{44}H_{70}O_{22}$ FW: 951.02	ASB-00018228-005 ASB-00018228-010	5mg 10mg	
 **Rebaudioside D** Grade: P CAS#: [63279-13-0] Chemical Formula: $C_{50}H_{80}O_{28}$ FW: 1129.15	ASB-00018229-001 ASB-00018229-005 ASB-00018229-010	1mg 5mg 10mg	
 **Rebaudioside F** Grade: P CAS#: [438045-89-7] Chemical Formula: $C_{43}H_{68}O_{22}$ FW: 936.99	ASB-00018305-005 ASB-00018305-010	5mg 10mg	

STEVIA REFERENCE STANDARDS

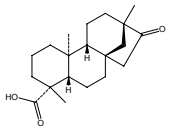
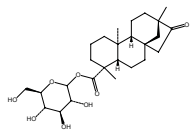
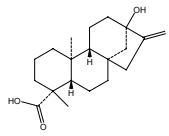
Product Description	Product ID	Qty	Price
 **Rubusoside** Grade: P CAS#: [64849-39-4] Chemical Formula: $C_{32}H_{50}O_{13}$ FW: 642.73	ASB-00018412-001 ASB-00018412-005 ASB-00018412-010	1mg 5mg 10mg	Call for a Quote
 **Steviolbioside** Grade: P CAS#: [41093-60-1] Chemical Formula: $C_{32}H_{50}O_{13}$ FW: 642.73	ASB-00019349-005 ASB-00019349-010 ASB-00019349-050	5mg 10mg 50mg	
 **Stevioside** Grade: P CAS#: [57817-89-7] Chemical Formula: $C_{38}H_{60}O_{18}$ FW: 804.88	ASB-00019351-005 ASB-00019351-010 ASB-00019351-050 ASB-00019351-001	5mg 10mg 50mg 1g	

Uses for Stevia Related Sweeteners

Alcoholic beverages
Desserts
Flavored water
Juices
Tea mixes - Iced tea
Baked goods and mixes
Confections and pastries
Syrups
Candy & Gum
Snacks
Ice cream

Dairy products
Sweeteners
Sugar-substitutes
Organic products
Dietary supplements
Nutritional products
Seasonings
Pharmaceutical syrups and tablets
Personal care products
Protein and sport drinks

OTHER STEVIA STANDARDS

Product Description	Product ID	Qty	Price
 **Isosteviol** Grade: P CAS#: [27975-19-5] Chemical Formula: $C_{20}H_{30}O_3$ FW: 318.46	ASB-00009591-005 ASB-00009591-010 ASB-00009591-050	5mg 10mg 50mg	Call for a Quote
 **Isosteviolmonoside** Grade: P CAS#: N/A Chemical Formula: $C_{26}H_{40}O_8$ FW: 480.59	ASB-00009592-001	1mg	
 **Steviol** Grade: P CAS#: [471-80-7] Chemical Formula: $C_{20}H_{30}O_3$ FW: 318.45	ASB-00019352-005 ASB-00019352-010 ASB-00019352-025	5mg 10mg 25mg	

BOTANICAL REFERENCE MATERIALS

Product ID	Product Name	Qty/ Unit	Price*
ASB-00030120-005	STEVIA (Stevia rebaudiana) LEAF (RGBRM)	5g	Call for a Quote
ASB-00030121-005	STEVIA (Stevia rebaudiana) LEAF (XRM)	5g	

STEVIA KITS

Product ID	Product Name	Qty/ Unit	Price*
KIT-00019565-005	Complete Stevia Standards Kit	11 x 5mg vials	Call for a Quote
KIT-00019565-010	Complete Stevia Standards Kit	11 x 10mg vials	
KIT-00019566-005	Common Stevia Gylcosides Standards Kit	7 x 5mg vials	
KIT-00019566-010	Common Stevia Gylcosides Standards Kit	7 x 10mg vials	
KIT-00019567-0HK	ChromaDex Stevia HPLC Kit (w/column)	9 x 5mg + Column	
KIT-00019568-005	JECFA Stevia Standards Kit	9 x 5mg vials	
KIT-00019568-010	JECFA Stevia Standards Kit	9 x 10mg vials	
KIT-00019569-0HK	JECFA Stevia HPLC Kit (w/column)	9 x 5mg + Column	

STEVIA TESTING

Service Code	Description	1 Sample	2-4 Samples	5-9 Samples	10+ Samples
CDA-00100134-ARS	Stevia for related Steviol Glycosides by ChromaDex™ HPLC*	Call for a Quote			
CDA-00100134-ATR	Stevia for related Steviol Glycosides by ChromaDex™ HPLC*				
CDA-00100674-ARS	Stevia for related Steviol Glycosides by JECFA HPLC*				
CDA-00100674-ATR	Stevia for related Steviol Glycosides by JECFA HPLC*				
CDA-00100488-ARS	Stevia Leaf for Identity by HP-TLC Analytical Report Sheet				
CDA-00100488-ATR	Stevia Leaf for Identity by HP-TLC Analytical Testing Report				
CDA-00018006-ARS	Residual Solvent Testing by GC				
CDA-00018006-ATR	Residual Solvent Testing by GC				

*Please note that ChromaDex currently has two different HPLC methods for analysis of Stevia related glycosides:
1) JECFA method, 2) ChromaDex method.

ChromaDex also offers many Stevia products in larger quantities.
Please contact your ChromaDex representative for a quote on our bulk materials.

Rebaudioside A Study

The rebaudioside A safety evaluation program included metabolism and pharmacokinetic studies, general and multi-generational safety studies, intake studies and human studies. Cargill sponsored the studies to affirm earlier safety findings for purified steviol glycosides, and to confirm that rebaudioside A is broken down by the body in the same way as stevioside, which has been studied extensively. Rebaudioside A – the main component of Reb A – is nearly identical in chemical structure to stevioside.

Study	Top-line Findings	Implications
Metabolism and pharmacokinetic studies	• Metabolism of rebaudioside A is similar to that of stevioside	• Safety data from stevioside studies can be applied to rebaudioside A • The safety of rebaudioside A is supported by a large database of scientific research
General safety	• No negative effects on general health associated with doses equivalent to a 150-lb person drinking more than 2,000 8-ounce servings of a rebaudioside A-sweetened beverage • No treatment-related effects on any organ, including kidneys and male reproductive organs	• Supports safety of high-purity steviol glycoside ingredients, including rebaudioside A • Refutes outdated studies suggesting adverse effects of Stevia or stevioside on male reproductive organs (1985, 1999) or on kidney function (1988, 1994, 1997) • Rebaudioside A does not affect general health or organ function
Multi-generational/ reproductive toxicology	• Daily consumption equivalent to a 150-lb person drinking nearly 1,000 8-ounce servings of a rebaudioside A-sweetened beverage had no negative effects on general health, reproduction, growth or development of adults or their offspring	• Refutes studies (1968, 1985, 1998, 1999) suggesting potential adverse effects on male or female fertility, or health of offspring • Rebaudioside A does not affect reproductive health or health of offspring
Chronic blood pressure study	• Daily consumption of 1,000 mg of rebaudioside A – equivalent to drinking more than eight 8-ounce servings of a rebaudioside A-sweetened beverage every day – for 4 weeks had no significant blood pressure effects in healthy subjects with normal or low-normal blood pressure	• Addresses questions raised by two Taiwanese studies (2000 and 2003) suggesting that stevioside (purity unknown) lowered blood pressure in people with essential hypertension • Rebaudioside A does not affect blood pressure
Chronic blood sugar study	• Daily consumption of 1,000 mg of rebaudioside A – equivalent to drinking more than eight 8-ounce servings of a rebaudioside A-sweetened beverage every day – for 16 weeks did not affect blood sugar control and was well-tolerated in people with type 2 diabetes	• Addresses questions raised by a single-dose study (2004) suggesting that stevioside reduced levels of blood sugar after meals in people with type 2 diabetes • Rebaudioside A does not affect blood sugar control in people with type 2 diabetes

- In safety studies, daily consumption of rebaudioside A equivalent to a 150-lb person drinking between 1,000 and 2,000 8-ounce servings of rebaudioside A-sweetened beverage had no negative effects on the general health, reproduction, growth or development of adults or their offspring.
- In clinical studies, daily consumption of 1,000 mg rebaudioside A – equivalent to consuming 29 packets of sweetener or drinking approximately eight 8-ounce servings of a rebaudioside A-sweetened beverage every day for 4 or 16 weeks – had no effect on blood pressure in healthy subjects with normal or low-normal blood pressure; or on blood sugar control in subjects with type 2 diabetes.