



ChromaDex®

Phytochemical Standards & Botanical Reference Materials

For confidence in
Natural Product Analysis

To learn more about our full range,
get in touch or visit: lgcstandards.com

LGC Quality
ISO/IEC 17025

Confidence in Natural Product Analysis Starts Here

Natural product testing presents unique analytical challenges. Complex matrices, variable raw materials and evolving quality requirements demand reference materials that scientists can trust.

Now part of LGC Standards, the ChromaDex® range helps laboratories, researchers and manufacturers generate accurate, reproducible and scientifically defensible results with one of the industry's most comprehensive portfolios of phytochemical reference standards and botanical reference materials.

With decades of expertise in natural products, rigorous characterisation practices and access to thousands of compounds across diverse chemical families, ChromaDex® provides the tools needed to support discovery, authentication, method development and quality control.

Whether you're identifying bioactive compounds, verifying botanical authenticity, developing analytical methods or supporting product quality, we help you deliver the confidence required to advance natural product science.

Why ChromaDex®



Comprehensive Portfolio

Access thousands of phytochemical reference standards and hundreds of botanical reference materials spanning flavonoids, alkaloids, phenolic acids, carotenoids, terpenes, vitamins and more.



Quality You Can Rely On

Every reference standard is characterised using rigorous analytical methods and supported by comprehensive documentation to help ensure accuracy, consistency, and confidence in testing.



From Discovery to Quality Control

Support every stage of the workflow – from natural product research and method development to raw material authentication and routine QC testing.



Natural Products Expertise

Decades of experience in botanical sourcing, compound isolation, purification and characterisation.

Discover the complete range at [lgcstandards.com](https://www.lgcstandards.com)

Speak to our team



Phytochemical Reference Standards

Choosing the correct Phytochemical Reference Standards is essential to the success of your quality management programme or research project. We offer three different product grades to suit your technical and budgetary needs. These product grades are differentiated by the level of characterisation and testing performed and reported on the certificate of analysis.



Primary Analytical Standard (P)

Suitable for quantitative analysis that requires a pure compound or very precise results. Primary Standards are orthogonally characterised by multiple analytical techniques. These products include a complete certificate of analysis for each lot that lists adjusted (as-is) purity calculated by HPLC or GC chromatographic purity, Karl Fischer (water content), and GC (residual solvent). The identity of these standards is confirmed with Mass Spectrometry and NMR.

Analytical Standard (AS)

Analytical Standard grade is a step below our Primary grade regarding the level of characterisation reported on the certificate of analysis accompanying each lot. Suitable for qualitative or quantitative analysis when water is not a factor. The purity of these products is determined by HPLC or GC chromatographic purity. Identity is confirmed by one technique, typically Mass Spectrometry. Water and residual solvents are not reported.

Reagent Grade (RG)

Used for research purposes only as a qualitative standard. Certificate of Analysis (CoA) only has basic physical properties – but are not characterised.

Product grades are differentiated by the level of characterisation and testing performed and reported for each lot of material

Grade	Chemical Data	Adjusted Purity	HPLC/ GC %	Water %	Solvent %	NMR	Mass Spec
Primary Analytical Standard (P)	✓	✓	✓	✓	✓	✓	✓
Analytical Standard* (AS)	✓		✓				✓
Reagent Grade (RG)	✓						

Typical uses and appropriate product grades

Grade	Quantitative HPLC / GC	Quality Control	Method Development	Working Standard	Cell Assays	Basic Research
Primary Analytical Standard (P)	✓	✓	✓	✓	✓	✓
Analytical Standard (AS)	✓*	✓*	✓	✓	✓	✓
Reagent Grade (RG)					✓	✓

**Since Analytical Standard (AS) grade products are not corrected for water and solvent content, quantitative results from these standards will give content on chromatographic purity only and will not account for the water and solvent that is contained in the sample being tested. Whenever possible for the most accurate analytical results, the best choice for quantitative analysis is a Primary Analytical Standard (P).*

Explore our Phytochemical portfolio

Access a broad range of almost 2000 reference standards spanning key natural product classes, including these key chemical families and more:



Flavonoids

Access one of the most extensive collections of flavonoid reference standards, supporting reliable identification, quantification and authenticity testing across botanical, food and nutraceutical applications.



Diterpene Glycosides

Accurately measure and differentiate steviol glycosides in sweetener products to support your label claims, regulatory compliance and product development.



Vitamin Derivatives

Support potency testing, stability studies and nutritional verification with trusted reference standards that help you ensure accurate vitamin analysis throughout a product's shelf life. Including both fat-soluble (A, D, E, K) and water soluble (B, C) vitamins.



Phenolic Acids

Measure key antioxidant compounds with confidence, enabling reproducible quantification, ingredient standardisation and support for your quality and health-related claims.



Alkaloids

From routine quality control to advanced research, our comprehensive alkaloid portfolio supports accurate analysis of biologically active compounds in complex botanical matrices.



Carotenoids

Helping you with accurate carotenoid analysis for nutritional testing, colourant verification and quality control, even in compounds susceptible to degradation and oxidation.



Triterpenes

Standardise botanical extracts and quantify important bioactive markers with reliable reference standards that support research, product development and quality assurance.



Tocopherols

Distinguish individual Vitamin E isomers and monitor degradation with confidence to support nutritional labelling, oxidation studies and shelf-life testing.



Saponins

Authenticate botanical products and measure key saponin components with confidence, helping ensure consistent potency, quality and batch-to-batch reproducibility

[Explore our range](#)



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Botanical Reference Materials

Botanical Reference Materials (BRMs) are well characterised materials sampled from specific plants and plant parts. BRMs are typically freeze-dried and ground plant material. Our range includes ~400 botanical reference materials with varying degree of characterisation, so you can verify the identity, authenticity and quality of botanical ingredients with confidence.



Voucher Botanical Reference Materials (VBRM)
Highly characterised Botanical Reference Materials. The Certificate of Analysis includes macroscopic and microscopic images with HP-TLC fingerprints to confirm the identity of the material. In addition, a voucher is collected at the time of harvest and the plant is visually identified. We retain access to the full vouchered specimen that can be used for authentication at a later date.

Botanical reference material (BRM)
BRMs are well characterised Botanical Reference Materials. The Certificate of Analysis for these BRMs includes both macroscopic and microscopic images with HP-TLC fingerprints to confirm the identity of the material.

Reagent Grade Botanical Reference Materials (RBRMs)
Characterised only by HP-TLC fingerprint analysis, detailed on their Certificate of Analysis.

Characterisation details for each grade

Grade	Plant information	HP-TLC Fingerprint Images	Macroscopic Images	Microscopic Images	Botanical Voucher Images
Vouchered Botanical Reference Materials (VBRMs)	✓	✓	✓	✓	✓
Botanical Reference Materials (BRMs)	✓	✓	✓	✓	
Reagent Grade Botanical Reference Materials (RBRMs)	✓	✓	✓		

Typical uses and the appropriate grade

Grade	Identity Verification	Raw Material Comparison	Thin Layer Chromatography (TLC)	Microscopy	Basic Research	Early Stage Method Development/ validation
Vouchered Botanical Reference Materials (VBRMs)	✓	✓	✓	✓	✓	✓
Botanical Reference Materials (BRMs)	✓	✓	✓	✓	✓	✓
Reagent Grade Botanical Reference Materials (RBRMs)					✓	✓

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