

Plant Extract Reference Materials

Now with HPTLC Fingerprint profiling

For research and quality analysis of natural products and herbal medicinal products, MilliporeSigma is providing a product line of plant extract reference materials with **quantitative values** for one or several key ingredients.

These secondary standards are developed and manufactured by **HWI Pharma Services GmbH** in Rülzheim (Germany) exclusively for us.

The **quantitative values** are determined by HPLC and are traceable to the corresponding HWI primary reference standards of the pure ingredients.

Several additional key ingredients are qualitatively confirmed and given as peak assignments in the HPLC chromatogram delivered with the product (Figure 1).

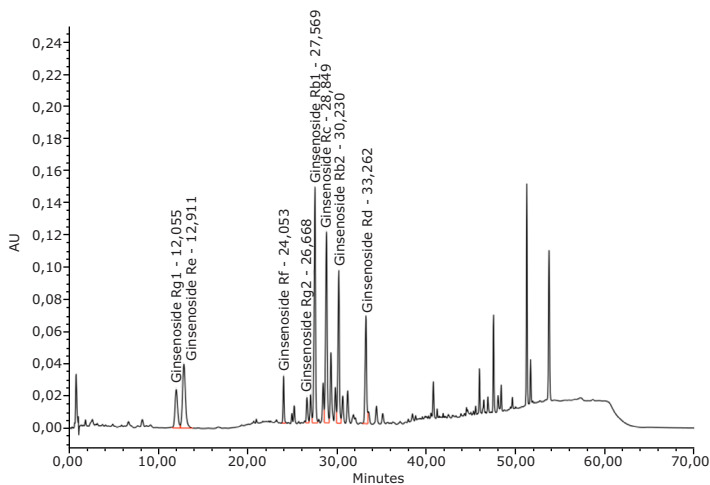
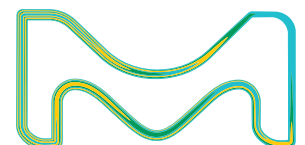


Figure 1: HPLC Chromatogram of the Panax ginseng extract and certificate excerpt

Parameter	Method	Requirement	Result
Characters			
Appearance	organoleptic	slightly brown powder	complies
Identity (HPLC)	AM 0481	Identification of Ginsenoside Rg1, Rb1, Re, Rf, Rg2, Rc, Rb2 and Rd	complies ²⁾
Identity (HPTLC)	external method *	Ginsenoside Rg1, Rg2, Rb1, Rb2, Re, Rf, Rc, Rd	complies**
Assay (HPLC)	AM 0481		
	"calibration standard: primary reference standard Ginsenoside Rg1 batch HWI01514"	Ginsenoside Rg1	9.44 mg/g
	"calibration standard: primary reference standard Ginsenoside Rb1 batch HWI01309"	Ginsenoside Rb1	44.01 mg/g



For new lots, the certificate has been revised and the products are now provided with an HPTLC fingerprint profile.

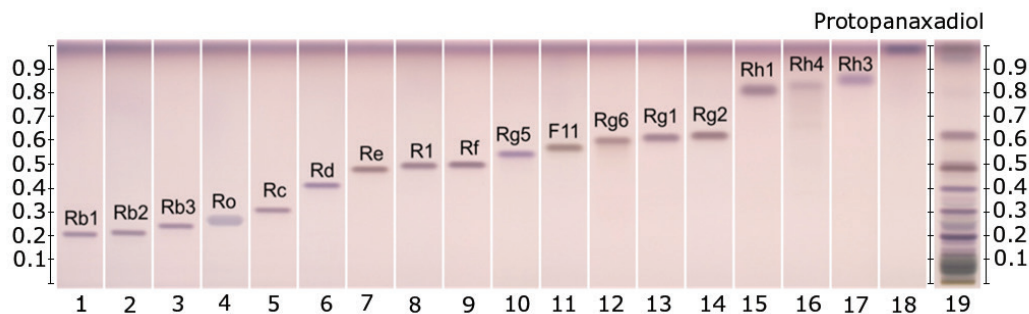


Figure 2: HPTLC Chromatograms (Camag) of the Panax ginseng extract (track 19) and standards of the individual ginsenosides

Description	Quantified Components	Qualitatively Confirmed Components	Product Number	Package Size
Camellia sinensis extract	Epigallocatechin gallate	Catechin, Epicatechin, Epicatechin gallate, Epigallocatechin, Epigallocatechin gallate	05495001	500 mg
Crataegus spp extract	Vitexin 2-O-rhamnoside	Chlorogenic acid, Hyperoside, Vitexin 2-O-rhamnoside	05095001	500 mg
Ginkgo biloba extract	Bilobalide, Ginkgolide A	Ginkgolides A, B, C, Bilobalide	05485001	500 mg
Harpagophytum procumbens extract	Harpagoside	8-p-Coumaryl harpagoside, Harpagoside	05125001	500 mg
Hypericum perforatum extract	Hypericin		05295001	500 mg
Panax ginseng extract	Ginsenosides Rb1+Rg1	Ginsenosides Rg1, Rb1, Re, Rf, Rg2, Rc, Rb2, Rd	05115001	500 mg
Passiflora incarnata extract	Isovitexin	Vitexin, Orientin, Homoorientin, Isovitexin	05085001	500 mg
Senna extract	Sennoside B	Sennosides A and B	05475001	500 mg
Silybum marianum extract	Silybin A+B	Silichristin, Silidianin, Isosilbinin A, Isosilbinin B, Silybin A, Silybin B	05135001	500 mg
Valeriana officinalis extract	Valerenic acid	Hydroxyvalerenic acid, Acetoxyvalerenic acid, Valerenic acid	05105001	500 mg

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