

Reference Substances for Herbal Products

phy|proof®
Proof of Quality for Markers

Proof of Quality for Markers

The quality of herbal drugs and the extracts and finished products made from them is essentially defined by their content of active substances or specific marker substances. High-quality reference substances are required in order to determine the quantitative content exactly. In its capacity as a laboratory specialising in herbal products, PhytoLab offers a wide range of extensively documented reference substances for all

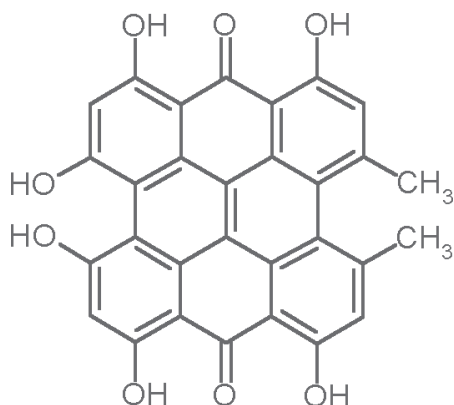
of the usual herbal drugs found in medicinal products and foodstuffs, including a large number of drugs from the Traditional Chinese Medicine (TCM) sector, under the name **phyproof**[®].

- Content standards
- Primary standard documentation
- Customized isolation
- Substance characterisation

Content standards

The **phyproof**[®] Reference Substances offered by PhytoLab constitute content standards that are ideal for use in daily quality control routines. The absolute content of the **phyproof**[®] Reference Substances has been established so comprehensively that they can be classified as primary reference substances according to the European Pharmacopoeia and other international standards. Apart from determining its chromatographic purity by means of HPLC or GC, each substance also undergoes coulometric water determination on a micro-scale, a validated headspace GC procedure is used to test for the presence of any residual solvents and any inorganic impurities are detected by means of ICP-MS (Inductively Coupled Plasma Mass Spectrometry).

It goes without saying that the identity of every **phyproof**[®] Reference Substance is verified – by means of ¹H-NMR or ¹³C-NMR spectroscopy, mass spectrometry or IR spectroscopy. Apart from the results of the individual assays, the certificate of analysis enclosed with the reference substance free of charge also contains information relating to the absolute content calculated from the results. This not only ensures that each **phyproof**[®] Reference Substance is ready to use, but also that the quoted absolute content is always up to date, as the chromatographic purity is checked at regular intervals.



Primary standard documentation

PhytoLab draws up extensive primary standard documentation that complies with all current regulatory requirements for every **phyproof**[®] Reference Substance, particularly for registration and marketing authorisation purposes. The documentation contains all of the raw analytical data from identity testing and content analysis (H-NMR, ¹³C-NMR, MS, IR, elemental analysis, TLC, water content, residual solvent content, inorganic impurity content, chromatographic purity testing by means of two independent chromatographic methods), as well as the requisite extensive interpretation of the results, the validation data from the two chromatographic procedures and more in-depth scientific literature references. Our primary standard documentations have been officially acknowledged by the regulatory authorities for many years now.

Contract isolation

In the unusual event that a particular reference substance is not included in our portfolio, we join forces with our partners all over the world to investigate the availability of the substance concerned. We are also happy to isolate and characterise the substance that you need in the required quantity and to the specified extent in our preparative laboratory.

Substance characterisation

Do you need characterisations and qualifications for your specific reference substances? PhytoLab offers you a service that is completely tailored to your individual requirements; beginning with chromatographic purity testing and determination of the water content, right through to complete primary standard documentation.

PhytoLab also provides support with respect to the identification and characterisation of marker substances in your drugs or extracts, whereby there is often no need to isolate the substance for this. Coupled HPLC-MS and HPLC-NMR procedures can frequently be used for identification purposes with a minimum of sample preparation work.

Up-to-date information in the Internet

Because the range of **phyproof**[®] Reference Substances is expanding all the time, you will find the most up-to-date information relating to the currently available reference substance spectrum at www.phytolab.com. Furthermore, you can use the **phyproof**[®] web shop as a source of information concerning the physico-chemical data of the offered substances, and as a convenient means of purchasing on-line.

Aloe (<i>Aloe sp.</i>)		Reference Substance (Product #)	
		Aloe emodin (89157)	Chrysophanol (89378)
		Aloin (89558)	
Andrographis (<i>Andrographis paniculata</i>)		Reference Substance (Product #)	
Chirette verte		Andrograpanin (89560)	14-Deoxy 11,14-didehydroandrographolide (89631)
		Andrographolide (89561)	Neoandrographolide (89740)
Anise (<i>Pimpinella anisum</i>)		Reference Substance (Product #)	
Anice	Anis vert	trans-Anethole (89158)	Isovitexin (89233)
Anis	Erva doce	p-Anisaldehyde (82469)	Luteolin (89245)
		Apigenin 7-glucoside (89160)	Luteolin 7-glucoside (89724)
		Chlorogenic acid (89175)	Neochlorogenic acid (80504)
		Cryptochlorogenic acid (80393)	Quercetin 3-glucuronide (80349)
		Estragole (82205)	Rutin (89270)
		Homoorientin (89709)	
Artichoke (<i>Cynara scolymus</i>)		Reference Substance (Product #)	
Alcachofa	Artichaut	trans-Caffeic acid (89547)	Luteolin (89245)
Alcachofera	Artischocke	Chlorogenic acid (89175)	Luteolin 7-glucoside (89724)
Alcachofra	Carciofo	Cryptochlorogenic acid (80393)	Neochlorogenic acid (89504)
		Cynarin (89179)	Rutin (89270)
		1,5-Dicaffeoylquinic acid (82221)	
Ashwagandha (<i>Withania somnifera</i>)		Reference Substance (Product #)	
Buferá	Schlafbeere	12-Deoxywithastramonolide (80422)	Withanone (82683)
Ginseng indiano	Winterkirsche	Withaferin A (89824)	Withanoside IV (80632)
		Withanolide A (80556)	Withanoside V (80633)
		Withanolide B (80557)	
Astragalus (<i>Astragalus sp.</i>)		Reference Substance (Product #)	
Astragale	Astragalo	Astragaloside I (89572)	Calycosin 7-glucoside (82492)
		Astragaloside II (89573)	Cycloastragenol (82509)
		Astragaloside III (80357)	Formononetin (89528)
		Astragaloside IV (89377)	Ononin (82359)
		Calycosin (82491)	
Bearberry (<i>Arctostaphylos uva-ursi</i>)		Reference Substance (Product #)	
Busserole	Uva de oso	Arbutin (89510)	Gallic acid (89198)
Echte Bärentraube	Uva ursi	Ellagic acid (89653)	Hydroquinone (80712)
Gayuba	Uva Ursina		
Bilberry (<i>Vaccinium myrtillus</i>)		Reference Substance (Product #)	
Arandano	Mirtillo	Cyanidin chloride (80022)	Malvidin chloride (80083)
Blaubeere	Mirtilo	Cyanidin 3-galactoside chloride (89463)	Malvidin 3-glucoside chloride (89728)
Blueberry	Myrtille	Cyanidin 3-glucoside chloride (89616)	Pelargonidin chloride (80084)
Heidelbeere		Delphinidin chloride (89625)	Peonidin chloride (80085)
		Delphinidin 3-galactoside chloride (89506)	Peonidin 3-glucoside chloride (89754)
		Delphinidin 3-glucoside chloride (89627)	Petunidin 3-glucoside chloride (89755)
Birch (<i>Betula pendula</i>)		Reference Substance (Product #)	
Abedul	Birke	Betulin (89581)	Lupeol (89722)
Betulla	Bouleau	Betulinic acid (89529)	Quercitrin (89346)
		Hyperoside (89227)	
Bitter orange (<i>Citrus aurantium</i>)		Reference Substance (Product #)	
Arancio	Fleur d'oranger	Eriocitrin (89194)	Nobiletin (80858)
Azahar	Flor de laranjeira	Hesperetin (89222)	Poncirin (82628)
Bigaradier	Laranja amarga	Hesperidin (89707)	Sinensetin (89278)
Bitterorange	Naranja amarga	Naringenin (89738)	Synephrine (89386)
Chinotto	Pomeranze	Naringin (89739)	Tangeretin (89803)
		Neohesperidin (89741)	

This listing is a small selection only. For the complete product range please refer to our phyproof® Reference Substances catalogue.

Black cohosh (<i>Cimicifuga racemosa</i>)		Reference Substance (Product #)	
Actées à grappes noires	Traubensilberkerze	Actein (89154)	27-Deoxyactein (89183)
Schwarze Schlangenzwurz		Cimifugin (89387)	trans-Isoferulic acid (89717)
Boldo (<i>Peumus boldus</i>)		Reference Substance (Product #)	
		Boldine (80145)	
Boswellia (<i>Boswellia serrata</i>)		Reference Substance (Product #)	
Incienso	Olibano	3-O-Acetyl α -Boswellic acid (89555)	β -Boswellic acid (89454)
Indischer Weihrauch		3-O-Acetyl β -Boswellic acid (89152)	11-keto- β -Boswellic acid (89169)
		3-O-Acetyl 11-keto- β -Boswellic acid (89153)	Serratol (89884)
		α -Boswellic acid (89585)	
Buckthorn (<i>Rhamnus frangula</i>)		Reference Substance (Product #)	
Bourdaïne	Frangola	Chrysophanol (89378)	Frangulin B (89196)
Faulbaum	Frángula	Emodin (89191)	Physcion (89757)
		Frangulin A (89665)	
Burdock (<i>Arctium lappa</i>)		Reference Substance (Product #)	
Bardana	Große Klette	Arctigenin (80354)	Arctiin (89531)
Grande bardane			
Butcher's broom (<i>Ruscus aculeatus</i>)		Reference Substance (Product #)	
Fragon	Rusco	Neuroscogenin (89253)	Ruscogenin (89268)
Petit houx	Stechender Mäusedorn		
Pungitopo			
Calendula (<i>Calendula officinalis</i>)		Reference Substance (Product #)	
Ringelblume	Souci officinal	Faradiol (82536)	Rutin (89270)
		Hyperoside (89227)	β -Sitosterol (89283)
		Isorhamnetin 3-neohesperidoside (82568)	Stigmaterol (82658)
		Oleanolic acid (89383)	
Cat's claw (<i>Uncaria tomentosa</i>)		Reference Substance (Product #)	
Katzenkrallen	Uña de gato	Isomitraphylline (89718)	Uncarine C (89814)
Liane du Pérou	Unha de gato	Isorhynchophylline (80483)	Uncarine D (89815)
		Mitraphylline (89736)	Uncarine E (89816)
		Rhynchophylline (80526)	
Cayenne (<i>Capsicum annum</i>)		Reference Substance (Product #)	
Callena	Peperoncino	Capsaicin (89520)	Nordihydrocapsaicin (89254)
Cayena	Piment	Dihydrocapsaicin (89647)	N-Vanillylnonamide (89820)
Chamomile (<i>Chamomilla recutita</i>)		Reference Substance (Product #)	
Camomila	Kamille	Apigenin (89159)	Chamazulene (89174)
Camomilla	Manzanilla	Apigenin 7-glucoside (89160)	Matricin (89248)
Camomille		(-)- α -Bisabolol (80005)	7-Methoxycoumarin (89733)
		Bisabololoxide A (89168)	Umbelliferone (80098)
Chaste tree (<i>Vitex agnus-castus</i>)		Reference Substance (Product #)	
Agnocasto	Mönchspfeffer	Agnuside (89155)	Casticin (89173)
Gattilier	Sauzgatillo	Aucubin (89163)	
Keuschlamm			
Cola nut tree (<i>Cola sp.</i>)		Reference Substance (Product #)	
Kola	Noz de cola	Caffeine (89591)	Theobromine (89808)
Noix de cola	Nuez de cola	(+)-Catechin (89172)	Theophylline (82668)
		(-)-Epicatechin (89192)	
Curcuma (<i>Curcuma longa</i>)		Reference Substance (Product #)	
Gelbwurzel		Bisdemethoxycurcumin (89582)	Demethoxycurcumin (89628)
		Curcumin (89180)	

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Dandelion (<i>Taraxacum officinale</i>)		Reference Substance (Product #)	
Dente de leão	Pissenlit	Apigenin 7-glucoside (89160)	Luteolin 7-glucoside (89724)
Diente de león	Tarassaco	Faradiol (82536)	Taraxasterol acetate (80542)
Löwenzahn			
Devil's claw (<i>Harpagophytum procumbens</i>)		Reference Substance (Product #)	
Artiglio del diavolo	Griffe du diable	Harpagide (89703)	Isoverbascoside (89232)
Garra del diablo	Harpagofito	Harpagoside (89218)	Verbascoside (89289)
Garra do diabo		Teufelskralle	
Dong quai (<i>Angelica sinensis</i>)		Reference Substance (Product #)	
Angélique de Chine		Bergapten (89865)	Z-Ligustilide (89242)
		trans-Ferulic acid (89663)	Osthole (89747)
		Imperatorin (89715)	Psoralen (89770)
Echinacea (<i>Echinacea sp.</i>)		Reference Substance (Product #)	
Coneflower	Equinácea	Caftaric acid (89170)	3,5-Dicaffeoylquinic acid (80426)
Echinacée	Sonnenhut	Chicoric acid (89177)	4,5-Dicaffeoylquinic acid (80427)
		Chlorogenic acid (89175)	Dodeca 2E,4E,8Z,10E,Z-tetraenoic acid isobutylamide (89187)
		Cynarin (89179)	Echinacoside (89188)
		3,4-Dicaffeoylquinic acid (80425)	
Elderberry (<i>Sambucus nigra</i>)		Reference Substance (Product #)	
Holunder	Saúco	trans-Caffeic acid (89547)	Hyperoside (89227)
Sabugueiro	Sureau noir	trans-p-Coumaric acid (89498)	Kaempferol (89235)
Sambuco		Cyanidin 3,5-diglucoside chloride (89615)	Kaempferol 3-glucoside (89237)
		Cyanidin 3-glucoside chloride (89616)	Quercetin (89262)
		Cyanidin 3-sambubioside chloride (89617)	Quercetin 3-glucoside (89230)
		trans-Ferulic acid (89663)	Rutin (89270)
Eyebright (<i>Euphrasia officinalis</i>)		Reference Substance (Product #)	
Augentrost	Euphrasia	Aucubin (89163)	Geniposide (89675)
Eufrasia		Catalpol (89595)	
Fennel (<i>Foeniculum vulgare</i>)		Reference Substance (Product #)	
Fenchel	Funcho	trans-Anethole (89158)	(+)-Limonene (80714)
Fenouil	Hinojo	Chlorogenic acid (89175)	Neochlorogenic acid (80504)
Finocchio		Cryptochlorogenic acid (80393)	α-Pinene (89257)
		Estragol (82205)	Quercetin 3-glucoside (89230)
		(-)-Fenchone (82541)	Quercetin 3-glucuronide (80349)
		Guaiaiverin (80986)	Rutin (89270)
Fenugreek (<i>Trigonella foenum-graecum</i>)		Reference Substance (Product #)	
Alholva	Fenouil	Dioscin (89648)	Quercetin 3-glucoside (89230)
Bockshornklee	Fieno greco	Diosgenin (89649)	Trigonelline chloride (80548)
Feno gregio	Trebol rosso	Homoorientin (89709)	Vitexin (89290)
		Isovitexin (89233)	Yamogenin (80634)
		Protodioscin (80522)	
Feverfew (<i>Tanacetum parthenium</i>)		Reference Substance (Product #)	
Fieberkraut	Partenio	Parthenolide (89255)	
Grande camomille	Tanaceto		
Mutterkraut			
Flaxseed (<i>Linum usitatissimum</i>)		Reference Substance (Product #)	
Leinsamen	Linhaça	Enterodiol (80436)	(-)-Matairesinol (80497)
Linaza	Lino	Enterolactone (80437)	(-)-Secoisolariciresinol (80532)
Lin cultivé		(+)-Lariciresinol (80484)	Secoisolariciresinol diglucoside (80533)
Garcinia (<i>Garcinia cambogia</i>)		Reference Substance (Product #)	
		(-)-Hydroxycitric acid lactone (80473)	

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Garlic (<i>Allium sativum</i>)		Reference Substance (Product #)	
Agljo Ail Ajo	Alho Knoblauch	L-(+/-)-Alliin (89470)	
Gentian (<i>Gentiana lutea</i>)		Reference Substance (Product #)	
Enzian Genciana Genciano	Gentiane Genziana	Amarogentin (80178) Gentiopicroside (89512)	Sweroside (89802) Swertiamarin (89513)
Ginger (<i>Zingiber officinale</i>)		Reference Substance (Product #)	
Gengibre Gingembre Ingwer	Jengibre Zenzero	6-Gingerol (89201) 8-Gingerol (89202)	10-Gingerol (89203) 6-Shogaol (89792)
Ginkgo (<i>Ginkgo biloba</i>)		Reference Substance (Product #)	
		(-)-Bilobalide (89167) Ginkgolic acid C13:0 (89678) Ginkgolic acid C15:1 (89522) Ginkgolic acid C17:1 (89207) Ginkgolic acids RN (89480) Ginkgolide A (89204) Ginkgolide B (89205)	Ginkgolide C (89206) Ginkgolide J (89329) Ginkgotoxin hydrochloride (82638) Isorhamnetin (89314) Kaempferol (89235) Quercetin (89262) Rutin (89270)
Ginseng (<i>Panax ginseng</i>)		Reference Substance (Product #)	
Ginseng coreano	Raiz de ging seng	Ginsenoside Rb1 (89208) Ginsenoside Rb2 (89209) Ginsenoside Rc (89210) Ginsenoside Rd (89211)	Ginsenoside Re (89212) Ginsenoside Rf (89213) Ginsenoside Rg1 (89214)
Ginseng, American (<i>Panax quinquefolius</i>)		Reference Substance (Product #)	
Amerikanischer Ginseng Ginseng américain	Ginseng americano	Ginsenoside Rb1 (89208) Ginsenoside Rb2 (89209) Ginsenoside Rc (89210) Ginsenoside Rd (89211)	Ginsenoside Re (89212) Ginsenoside Rf (89213) Ginsenoside Rg1 (89214)
Goldenroot (<i>Rhodiola rosea</i>)		Reference Substance (Product #)	
Rhodiola	Rosenwurz	Rosarin (89903) Rosavin (89264)	Rosin (89902) Salidroside (89462)
Goldenseal (<i>Hydrastis canadensis</i>)		Reference Substance (Product #)	
Goldsiegelwurz Hidrastis Hydraste du Canada	Idraste Kanadische Gelbwurz	Berberine chloride dihydrate (89487) Hydrastine (89511)	Palmatine chloride (89490)
Gotu kola (<i>Centella asiatica</i>)		Reference Substance (Product #)	
Asiatischer Wassernabel		Asiatic acid (89569) Asiaticoside (89570)	Madecassic acid (80229) Madecassoside (80230)
Grape seed (<i>Vitis vinifera</i>)		Reference Substance (Product #)	
Pépins de raisin Semilla de uva	Traubenkerne	(+)-Catechin (89172) (-)-Epicatechin (89192) Gallic acid (89198) trans-Polydatin (89312)	Procyanidin B1 (89764) Procyanidin B2 (89552) Procyanidin C1 (89537) trans-Resveratrol (89539)
Green tea (<i>Camellia sinensis</i>)		Reference Substance (Product #)	
Chá verde Grüntee Té verde	The verde Thé vert	Caffeine (89591) (+)-Catechin (89172) Chlorogenic acid (89175) (-)-Epicatechin (89192) (-)-Epicatechin 3-gallate (89193) (-)-Epigallocatechin (89655) (-)-Epigallocatechin 3-gallate (89656)	Gallic acid (89198) (-)-Gallocatechin (80096) (-)-Gallocatechin 3-gallate (89667) L-Theanine (82213) Theobromine (89808) Theophylline (82668)

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Guarana (<i>Paullinia cupana</i>)		Reference Substance (Product #)	
		Caffeine (89591) (+)-Catechin (89172) (-)-Epicatechin (89192)	Theobromine (89808) Theophylline (82668)
Hawthorn (<i>Crataegus sp.</i>)		Reference Substance (Product #)	
Aubépine Espino blanco	Weißdorn	trans-Caffeic acid (89547) Chlorogenic acid (89175) Hyperoside (89227) Procyanidin B2 (89552)	Rutin (89270) Vitexin (89290) Vitexin 2''-rhamnoside (89291)
Hops (<i>Humulus lupulus</i>)		Reference Substance (Product #)	
Hopfen Houblon	Luppolo Lúpulo	Hulupinic acid (89899) Isoxanthohumol (89234) 6-Prenylningenin (80520)	8-Prenylningenin (89886) Xanthohumol (89292)
Horny goat weed (<i>Epimedium grandiflorum</i>)		Reference Substance (Product #)	
Epimèdre	Geiles Ziegenkraut	Epimedin A (80586) Epimedin B (80587) Epimedin C (80588)	Icariin (89714) Icaritin (80478)
Horse chestnut (<i>Aesculus hippocastanum</i>)		Reference Substance (Product #)	
Castanha da Índia Castaño de Indias Ippocastano	Marronnier Roskastanie	Escin (89871)	Esculin (89659)
Horsetail (<i>Equisetum arvense</i>)		Reference Substance (Product #)	
Cavalinha Cola de caballo Equiseto dei campi	Prêle des champs Schachtelhalm	Kaempferol 3-glucoside (89237)	Quercetin 3-glucoside (89230)
Ivy (<i>Hedera helix</i>)		Reference Substance (Product #)	
Edera Efeu Hera	Hiedra Lierre	Hederacoside C (89221) Hederagenin (89706)	α-Hederin (89220)
Java tea (<i>Orthosiphon aristatus</i>)		Reference Substance (Product #)	
Chá de Jáva Indischer Nierentee Katzenbart	Ortosifón Té de Java Thé de Java	Eupatorin (80451)	Sinensetin (89278)
Kava kava (<i>Piper methysticum</i>)		Reference Substance (Product #)	
Rauschpfeffer		Desmethoxyyangonin (89184) Dihydrokavain (89185) Dihydromethysticin (89186)	D,L-Kavain (89239) Methysticin (89250) Yangonin (89293)
Lavender (<i>Lavandula angustifolia</i>)		Reference Substance (Product #)	
Alfazema Lavanda	Lavande Lavendel	D,L-Camphor (80087) Eucalyptol (89195) Lavandulol (80887) Lavandulyl acetate (80653) (+)-Limonene (80714)	Linalool (80885) Linalyl acetate (89243) 3-Octanone (82611) Terpinen 4-ol (82662) α-Terpeneol (89872)
Lemon balm (<i>Melissa officinalis</i>)		Reference Substance (Product #)	
Mélisse	Zitronenmelisse	Apigenin 7-glucoside (89160) trans-Caffeic acid (89547) Chlorogenic acid (89175) Citral (82501) Citronellal (82502) trans-p-Coumaric acid (89498)	trans-Ferulic acid (89663) Luteolin 7-glucoside (89724) Oleanolic acid (89383) Quercetin 3-glucoside (89230) Rosmarinic acid (89266) Ursolic acid (89541)

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Licorice (<i>Glycyrrhiza sp.</i>)		Reference Substance (Product #)	
Alcaçuz	Regaliz raíz	Formononetin (89528)	Isoliquiritigenin (89544)
Lakritz	Régliſse	Glabridin (80463)	Isoliquiritin (80481)
Liquirizia	Süßholz	18 α -Glycyrrhetic acid (82552)	Licochalcone A (80486)
Palo dulce		18 β -Glycyrrhetic acid (89694)	Liquiritigenin (89543)
		Glycyrrhizin (89217)	Liquiritin (80490)
Linden (<i>Tilia sp.</i>)		Reference Substance (Product #)	
Lime	Tiła	trans-p-Caffeic acid (89547)	Kaempferol (89235)
Linde	Tilleul	Chlorogenic acid (89175)	Kaempferol 3-glucoside (89237)
Tiglio		trans-p-Coumaric acid (89498)	Protocatechuic acid (89766)
		Ellagic acid (89653)	Quercetin (89262)
		Esculin (89659)	Quercetin 3-glucoside (89230)
		Fraxin (89545)	Quercitrin (89346)
		Gallic acid (89198)	Rutin (89270)
		Hyperoside (89227)	Tilioside (89809)
Maca (<i>Lepidium peruvianum</i>)		Reference Substance (Product #)	
		Glucotropaeolin potassium salt (89216)	
Mangosteen (<i>Garcinia mangostana</i>)		Reference Substance (Product #)	
Mangostane	Mangostino	Mangostin (89247)	
Mangostin	Mangoustan		
Meadowsweet (<i>Filipendula ulmaria</i>)		Reference Substance (Product #)	
Mädesüß	Reine-des-prés	Hyperoside (89227)	Rutin (89270)
Olmaria	Ulmaria	Methyl salicylate (82239)	Salicylaldehyde (82646)
		Quercetin (89262)	Spiraeoside (89798)
		Quercetin 3-glucuronide (80349)	
Milk thistle (<i>Silybum marianum</i>)		Reference Substance (Product #)	
Cardo mariano	Mariendistel	Isosilybin (A + B mixture) (89231)	Silybin A (82653)
Chardon-Marie	Silimarina	Isosilybin A (82570)	Silybin B (82654)
		Isosilybin B (82571)	Silychristin (89281)
		Silybin (A+B mixture) (89280)	Silydianin (89282)
Olive (<i>Olea europaea</i>)		Reference Substance (Product #)	
Oliva	Olivo	Hydroxytyrosol (80152)	Oleuropein (89338)
		Oleanolic acid (89383)	Tyrosol (80166)
		Oleoside 11-methyl ester (89652)	
Oregano (<i>Origanum vulgare</i>)		Reference Substance (Product #)	
Dorst	Origano	Carvacrol (80241)	Thymol (89287)
Origan	Wilder Majoran		
Passion flower (<i>Passiflora incarnata</i>)		Reference Substance (Product #)	
Maracujá	Passionsblume	Homoorientin (89709)	Orientin (89746)
Passiflore		Hyperoside (89227)	Vitexin (89290)
		Isovitexin (89233)	
Peppermint (<i>Mentha piperita</i>)		Reference Substance (Product #)	
Hortelã-pimenta	Menthe poivrée	trans-Caffeic acid (89547)	(+)-Menthofuran (82584)
Menta	Pfefferminze	trans-p-Coumaric acid (89498)	(-)-Menthol (89517)
		trans-Ferulic acid (89663)	(-)-Menthone (82241)
		(+)-Isomenthol (80016)	(-)-Menthyl acetate (80684)
		Isomenthone (89328)	Rosmarinic acid (89266)
Plantain (<i>Plantago lanceolata</i>)		Reference Substance (Product #)	
Llantén	Spitzwegerich	Aucubin (89163)	Neochlorogenic acid (80504)
Siete venas		Catalpol (89595)	Verbascoside (89289)
		Chlorogenic acid (89175)	

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Pomegranate (<i>Punica granatum</i>)		Reference Substance (Product #)	
Granada	Mangrano	Punicalagin (80524)	
Granatapfel	Melograno		
Grenade	Romā		
Red clover (<i>Trifolium pratense</i>)		Reference Substance (Product #)	
Rotklee	Trèfle rouge	Biochanin A (80012)	Formononetin (89528)
Trebol de los prados	Trevo vermelho	Calycosin (82491)	Genistein (89199)
Trebol rojo	Trifoglio	Daidzein (89181)	Genistin (89200)
		Daidzin (89182)	Ononin (82359)
Rhubarb (<i>Rheum sp.</i>)		Reference Substance (Product #)	
Rabarbaro	Rhubarbe	Aloe emodin (89157)	Rhaponticin (89776)
Rhabarber	Ruibarbo	Chrysophanol (89378)	Rhein (89385)
		Emodin (89191)	Sennoside A (89276)
		Physcion (89757)	Sennoside B (89277)
Rosemary (<i>Rosmarinus officinalis</i>)		Reference Substance (Product #)	
Alecrim	Rosmarin	Borneol (89583)	(+)-Limonene (80714)
Romarin	Rosmarino	(-)-Bornyl acetate (89584)	β -Myrcene (80835)
Romero		trans-Caffeic acid (89547)	α -Pinene (89257)
		D,L-Camphene (80063)	β -Pinene (89335)
		D,L-Camphor (80087)	Rosmarinic acid (89266)
		Carnosic acid (89171)	α -Terpineol (89872)
		p-Cymene (80836)	(-)-Verbenone (80837)
		Eucalyptol (89195)	
Sage (<i>Salvia officinalis</i>)		Reference Substance (Product #)	
Salbei	Sauge	Borneol (89583)	Oleanolic acid (89383)
		(-)-Bornyl acetate (89584)	α -Pinene (89257)
		trans-Caffeic acid (89547)	β -Pinene (89335)
		D,L-Camphene (80063)	Rosmarinic acid (89266)
		D,L-Camphor (80087)	(-)- α -Thujone (89286)
		β -Caryophyllene (80717)	α,β -Thujone (82669)
		Chlorogenic acid (89175)	Ursolic acid (89541)
		Eucalyptol (89195)	
Saw palmetto (<i>Serenoa repens</i>)		Reference Substance (Product #)	
Palmier nain	Sabal	Methyl Caprate (82587)	Methyl Myristate (82594)
Palmito	Sägepalme	Methyl Caproate (82588)	Methyl Oleate (80172)
		Methyl Caprylate (82589)	Methyl Palmitate (80173)
		Methyl Laurate (89249)	Methyl Palmitoleate (82596)
		Methyl Linoleate (80174)	Methyl Stearate (82597)
		Methyl Linolenate (82593)	β -Sitosterol (89283)
Schizandra (<i>Schisandra chinensis</i>)		Reference Substance (Product #)	
Chinesischer Limonenbaum	Chizandra	Schisandrol A (89885)	Schizandrin A (89785)
Chinesisches Spaltkörbchen		Schisandrol B (80206)	Schizandrin B (89786)
		Schisantherin A (89316)	
Senna (<i>Cassia sp.</i>)		Reference Substance (Product #)	
Sen	Sennes	Aloe emodin (89157)	Sennoside B (89277)
Sene		Emodin (89191)	Sennoside C (80534)
		Rhein (89385)	Sennoside D (80535)
		Sennoside A (89276)	
Siberian ginseng (<i>Eleutherococcus senticosus</i>)		Reference Substance (Product #)	
Eleuterococco	Ginseng sibérien	trans-Caffeic acid (89547)	Eleutheroside E (89190)
Eleuterococo	Sibirischer Ginseng	Chlorogenic acid (89175)	Isofraxidin (89229)
Gingseng siberiano	Taigawurzel	Eleutheroside B (89189)	
Ginseng siberiano			

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Soy (<i>Glycine max</i>)		Reference Substance (Product #)	
Soia	Soya	Dadzein (89181)	Genistin (89200)
Soja		Daidzin (89182)	Glycitein (89692)
		Genistein (89199)	Glycitin (89693)
St. John's wort (<i>Hypericum perforatum</i>)		Reference Substance (Product #)	
Hierva de San Juan	Iperico	Hyperforin, stable DCHA salt (89225)	Quercetin (89262)
Hipérico	Millepertuis	Hypericin (89226)	Quercetin 3-glucoside (89230)
Johanniskraut		Hyperoside (89227)	Rutin (89270)
		Pseudohypericin (89261)	
Stevia (<i>Stevia rebaudiana</i>)		Reference Substance (Product #)	
Süßkraut		Dulcoside A (82417)	Rebaudioside D (82398)
		Isosteviol (82395)	Rubusoside (80078)
		Rebaudioside A (80067)	Steviol (82262)
		Rebaudioside B (82396)	Steviolbioside (82399)
		Rebaudioside C (82397)	Stevioside (89800)
Stinging nettle (<i>Urtica sp.</i>)		Reference Substance (Product #)	
Brennessel	Ortiga	L-Aspartic acid (80666)	Oleanolic acid (89383)
Ortiga	Urtiga	trans-Caffeic acid (89547)	Quercetin 3-glucoside (89230)
Ortie		Caffeoylmalic acid (89238)	Rutin (89270)
		Chlorogenic acid (89175)	Scopoletin (89516)
		L-Glutamic acid (82551)	β -Sitosterol (89283)
		Kaempferol 3-glucoside (89237)	β -Sitosterol D-glucoside (80538)
Thyme (<i>Thymus vulgaris</i>)		Reference Substance (Product #)	
Thym	Tomilho	Apigenin (89159)	β -Myrcene (80835)
Thymian	Tomillo	Apigenin 7-glucoside (89160)	Oleanolic acid (89383)
Timo		Borneol (89583)	Rosmarinic acid (89266)
		Carvacrol (80241)	γ -Terpinene (82661)
		p-Cymene (80836)	α -Terpineol (89872)
		Eucalyptol (89195)	Terpinen 4-ol (82662)
		Linalool (80885)	Thymol (89287)
		Luteolin (89245)	Ursolic acid (89541)
		Luteolin 7-glucoside (89724)	
Tribulus (<i>Tribulus terrestris</i>)		Reference Substance (Product #)	
Castaña de agua	Trébol	Dioscin (89648)	Protodioscin (80522)
Erdbeurzeldorn	Tribule terrestre	Diosgenin (89649)	
Valerian (<i>Valeriana officinalis</i>)		Reference Substance (Product #)	
Baldrian	Valériane	Acetoxyvalerenic acid (89151)	Valerenic acid (89288)
		Hydroxyvalerenic acid (89224)	
White willow (<i>Salix alba</i>)		Reference Substance (Product #)	
Salice alba	Saule blanc	(+)-Catechin (89172)	Salicin (89782)
Sauce	Silberweide	Eleutheroside B (89189)	
Yarrow (<i>Achillea millefolium</i>)		Reference Substance (Product #)	
Milenrama	Millefeuille	Casticin (89173)	Guaiazulene (89697)
Mil folhas	Millefoglio	Chamazulene (89174)	Luteolin (89245)
Milhojas	Schafgarbe	Eucalyptol (89195)	Luteolin 7-glucoside (89724)
		Apigenin (89159)	Rutin (89270)
		Apigenin 7-glucoside (89160)	
Yohimbe (<i>Pausinystalia yohimbe</i>)		Reference Substance (Product #)	
		Ajmalicine (82463)	Yohimbine hydrochloride (82685)

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