



Ginkgo biloba

Botanical Extract



Ginkgo biloba

Ginkgo biloba EPG 246

Between 22.0% and 27.0% ginkgo flavon glycosides

Between 2.6% to 3.2% bilobalide

Between 2.8% to 3.4% ginkgolides A, B and C



Ginkgo biloba ethanol

NLT 24% ginkgo flavon glycosides

NLT 6.0% terpene lactones



Uses

Ginkgo contains unique **flavonoids and terpenes** that have a regulating effect on the vascular system

Ginkgo's flavonoids have antioxidant and free-radical scavenging properties that protect **neurons** and **retinal tissue**, promote the metabolism of brain cells and sensory neurons and, as reported in the published literature, are widely used to treat conditions such as brain dysfunction, memory loss, concentration disorders, dizziness and tinnitus

Ginkgo extract is also used as an **anti-ageing agent** in cosmetic formulations

Key

EP European Pharmacopeia monograph

DMF Drug Master File available

 Pharmaceutical (API)

 Food supplement Ingredient

Linnea Extracts

The philosophy of Excellence

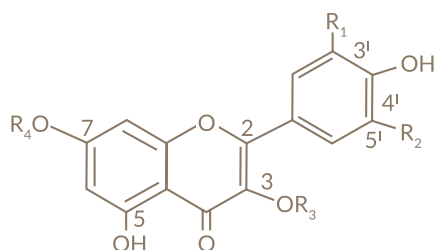
- **USA and European** specialized plantations
- **Controlled** harvesting of leaves
- The **plantations are owned and controlled** by Linnea's shareholders (Schwabe and Ipsen)
- **Environmental control**
- Farmed in compliance with **GAPs**

Ginkgo leaves are harvested green, dehydrated and packed into bales in accordance with standard operating procedures

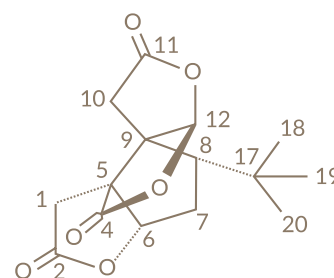
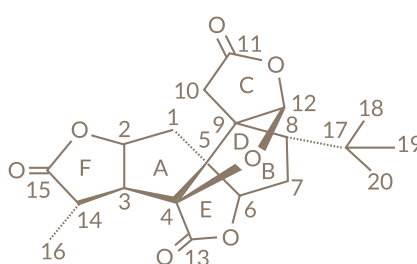
The entire procurement process is carried out in collaboration with the shareholders and the plantations are **regularly audited**

Technical Description

Name of the plant	Ginkgo biloba L.
Part of the plant used	Leaves
CAS number	90045-36-6
Appearance	Light brown amorphous powder
Solubility	Soluble in ethanol/water (aT +4% w/v in ethanol/water 55:45 v/v)
Storage	Preserve in tight container, protected from light, heat and humidity



Flavonol aglycone	R1	R2	R3	R4
Kaempferol	H	H	H	H
Quercetin	OH	H	H	H
Isorhamnetin	OCH3	H	H	H
Myricetin	OH	OH	H	H
3'-Methylmyricetin	OCH3	OH	H	H



Where:

Ginkgolide A	[I] 3-aOH, 10-bOH
Ginkgolide B	[I] 1,3-aOH, 10-bOH
Ginkgolide C	[I] 1,3-aOH, 7,10-bOH
Ginkgolide J	[I] 3-aOH, 7-bOH, 10-bOH
Bilobalide	[II] 10-aOH, 8-bOH

Analytical Description

	Ginkgo biloba EPG 246	Ginkgo biloba Ethanol
Description	Dry extract, refined and quantified	Herbal extract
Identification	HPLC; TLC	HPLC; TLC
Loss on drying	NMT 3.0%	NMT 3.0%
Sulphated ash	NMT 1.5%	NMT 1.5%
Ginkgo flavon glycosides assay (on dry basis total)	Between 22.0% and 27.0 %	NLT 24.0 %
Terpene lactones (on dry basis)	NLT 6.0% (including J)	NLT 6.0% (including J)
Ginkgolic acids on dry basis	NMT 5.0 ppm	NMT 5.0 ppm

Discover Linnea's full range of Botanical Products:

 Butylscopolamine

 5-HTP

 Cannabis-Hemp

 Vinpocetine

 HMRLignan™

 Ginkgo biloba

 Vincamine

 Bilberry

 Red Clover

Linnea's Certificates



High level of compliance with GMPs in product manufacturing

GMP compliance certified by

swissmedic

Swiss Agency for Therapeutic Products



GMO free



Allergen, Gluten, Lactose, Melamine Free



Vegan certified



Kosher certified



Halal certified

No materials containing engineered nanomaterial are used in the manufacturing process and the product is not irradiated. The raw material, intermediates and auxiliary compounds are free from pesticides, dioxin and aflatoxins.

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