

# SELECT BOTANICAL

## SOY ISOFLAVONES Technical-Scientific report

### GENERAL INFORMATION

Select Botanical manufactures highest quality extracts following strictest Quality Management System in compliance with the "Good Manufacturing Practices" requirements, carrying on the last manufacturing steps in classified areas (Clean Rooms).

Select Botanical assures the traceability with rigorous analysis form raw material to finished product.

### SPECIFICATIONS/ TECHNICAL CHARACTERISTICS

#### Extract Specifications

Botanical name:	<i>Glycine max L</i>
Appearance:	Yellowish-brown powder
Loss on drying:	≤ 6 % w/w
Total ash:	≤ 7 % w/w
Protein:	≤ 10 % w/w
Heavy metals:	Analysis of Pb,As,Cd and Hg
Microbiological assay:	Acc.to Ph. Eur.current Ed "5.1.8. Point B"
Residual solvents:	According to guidelines CPMP/ICH/283/95
Assay (HPLC):	Total isoflavones: 40-45 % Total Genistin and Genistein Content (in relation to the total isoflavones): 55-72 %

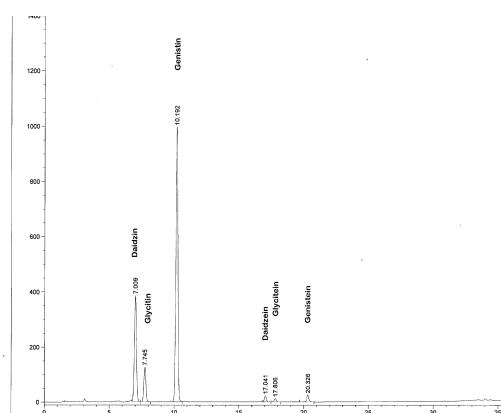
### INFORMATION ABOUT PLANT ORIGIN

#### Botanical Description

*Glycine max*, the soybean (also soya- or soja bean, formerly classified as *Glycine soja*), is an annual herbaceous plant in the Fabaceae (legume or bean family) that originated in southeastern Asia (including China, Japan, and Korea). *Glycine max* (soybean) is an erect annual herb with pinnate, 3-foliolate leaves. It produces 2-5 round seeds in pendulous pods and is cultivated as a protein source throughout temperate and tropical regions.

### QUALITY INFORMATION

#### HPLC Chromatographic profile



#### Analytical marker / Active principle

Daidzein	Genistein	Glycitein
Daidzin	Genistin	Glycitin

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### PHARMACOLOGICAL STUDIES

- sb** *Estrogenic activity:* Isoflavones are phytoestrogens with potent estrogenic activity. The soy isoflavones can bind to the estrogen receptor and induce estrogen-like effects in vivo in animals and humans, and in vitro in cell cultures.
- sb** *Isoflavones and bone tissue:* Six-month genistein administration to postmenopausal women led to a significant increase in bone density and concurrent reduction in the concentration of biochemical markers of bone resorption. Decreased the bone resorption marker urinary deoxypyridinoline (DPD)
- sb** *Isoflavones and Cardiovascular system:* There is evidence that isoflavones affect the cardiovascular system via several mechanisms. These include regulation of vasoactivity and alteration of lipid metabolism. Increasing NO plasma concentration by genistein.
- sb** *Antioxidant activity*

### PHYTOTHERAPY

#### Activities

#### Oral use:

- sb** Estrogenic
- sb** Antioxidant
- sb** Cardiovascular activity

#### Indications:

#### Oral use:

- sb** Treatment of menopausal and perimenopausal symptoms.
- sb** Reduction of risk of heart disease and osteoporosis in postmenopausal women.

#### Undesirable effects:

The current literature supports the safety of isoflavones as typically consumed in diets based on soy or containing soy products.

#### Dosage and administration:

#### Oral use:

The recommended daily dose for the treatment of the menopause: 35-80 mg/day of Isoflavones expressed as genistein (twice-daily).

### BIBLIOGRAPHY AND OTHER REFERENCE SOURCES

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