

TimTec Featured Plant Extracts collection gathers extracts from plants with known medicinal properties or the history of the traditional use.

Plant Extracts is a collection of crude mixtures extracted from different parts of plants sampling the flora of Eastern Eurasia.

Plant Extracts are subdivided into four collections:

- 1. Featured Extracts from traditionally used plants. Information available for each extract:
- Plant Name
- Botanical Info
- Geography
- Chemical Content
- Traditional Use and Activity
- Plant Images

Information is compiled using regional print and online plant registers as well as reference materials.

- 2. Extracts available from US stock. About 130 extracts are randomly selected to represent geographical diversity and include different plants as well as different parts of the same plant.
- 3. Custom Extraction from stock material. 2,600 plants (dried material) available for custom selection.
  - 4. Custom Extraction from plants to-be-collected. 9,000 plants are on this list

Advances in screening and separation technologies calculate bioactivity with greater efficiency and accuracy. Recently reported method of Direct Screening of Natural Products Extracts Using Mass Spectrometry does not require any preparation or fractionation work. Several hundred crude extracts can be screened in a day. Direct bioaffinity screening mass spectrometry method followed by the use of ligand mass information for mass-directed purification makes screening of crude extracts and identification of active compounds very effective.

Vu, H., et. al. Direct Screening of Natural Product Extracts Using Mass Spectrometry. J. of Biomol. Screening. 2008, v. 13, 4, 265-275

Related Info: Natural Product Reports article

**Related products** 

NPL, Natural Products Library of pure individual natural compounds

<u>NDL</u>, Natural Derivatives Library elaborates on structural diversity of pure natural molecules and includes natural derivatives, analogs, semi-natural compounds, and mimics.

Flavonoid derivatives collection, <u>FL-500</u>

#### Gossypol and its derivatives

<u>Chem-TCM</u> Database of molecular records, constituents of plants used in traditional Chinese medicine

## Plant Extracts: 2600 in current inventory. 9000 more available for collection

Our database contains plants collected from various regions of the former USSR with about 2600 available from stock for extraction. Extracts can be acquired either in bulk or in custom amounts. Active plant component identification is possible.

Pricing - depends on the collection region, amount of extract, number of extracts from one sample, solvents used for extraction and procedure. Please <u>contact us</u>

Delivery time – 5-6 months if the product is not in stock and collection is necessary. The collection season starts in April and ends in October.

## View 2600 plants available from inventory. By first letter:

- A B Plants
- C F Plants
- G L Plants
- M R Plants
- S Z Plants

# 9000 plants available for collection

Download all plant list available from stock and for collection.

#### **How Plant Extracts are Prepared**

The collected plant material (plant parts: stems, leaves, flowers, roots, bark etc.) is dried in a ventilated oven at 45 oC for 24 H, and subsequently milled to a fine powder by means of an IKA Universal Mixer M20 (or other type). An amount of 20.0 g of the dried plant powder is weighed in an Erlenmeyer of 100 ml to which 70 ml of hexane (purity grade 99 %) is added (the plant

sample has to be submerged with solvent) for pre-extraction. The Erlenmeyer is placed in a sonicator-bath (Branson 8210 or some other type) and sonicated at a temperature 40 oC during 30 minutes. The mixture is filtered using paper filter, followed by washing the Erlenmeyer with 20 ml of hexane and then with 50 ml of hexane. The filtrate is poured in a round-bottomed flask and the solvent is concentrated in vacuo (at about 11 mm Hg) up to 5-10 ml by means of rotavapor, utilizing a water bath at 40 oC. This residue is brought in a 30-ml vessel to let the solvent evaporate. The open vessel is left overnight in a well-ventilated hood in order to evaporate the last traces of the solvent in the hexane pre-extract.

The solids, collected on the filter, are broken up and dried in the air overnight in the hood. The dried material is extracted in the same way with methanol-water (90:10). The dried material from the filters placed in an Erlenmeyer of 100 ml to which 70 ml of 90 % methanol is added. The mixture is sonicated as above at 40C during 30 minutes, after which it is filtered, followed by washing the Erlenmeyer with 20 ml of 90 % methanol. The filtrate is poured in a round-bottomed flask and the solvent is evaporated in vacuo completely. The dry 90% methanol extract is dissolved in as little as possible 100 % methanol by using the sonicator-bath and poured in a 30-ml vessel to let it evaporate overnight in the hood.