

## Drosera extract S XXI 50 ml

EAN: 8422947044213    FABRICANTE: SORIA NATURAL



*Sundew (Drosera rotundifolia L.) has multiple properties, which can promote expectorant and mucolytic action, as well as calm coughs.*

### DESCRIPTION

#### Ingredients

**For 3 ml** : Humectant: glycerin, water, freeze-dried extract of sundew ( *Drosera rotundifolia* L, paérea) (540 mg), gamma-cyclodextrins (180 mg) and alpha-cyclodextrins (90 mg).

#### Instructions for use

Adults: It is recommended to take 1 ml, 3 times a day, diluted in water.

Children: according to the physician's discretion.

Shake before use. To dispense, squeeze the nipple and wait a few seconds.

## DROSERA

*Drosera rotundifolia* L

### Description

Perennial herb, small in size (up to 15 cm). Leaves in a basal rosette, with a petiole up to 3 cm long and a suborbicular blade (up to 1 cm wide), covered with characteristic pedicellate and sticky glands, often red in colour. Inflorescence in racemiform cymes, with 6-10 small flowers with a white corolla. Flowers pentamerous, with green, obtuse sepals, fused together at the base. White petals, free from each other. Stamens in number of 5, alternate with the petals. Ovary tricarpellate, superior, crowned by 6 styles (3 divided each into 2). The fruit is an oval capsule somewhat shorter than the calyx, with valvar dehiscence. The flowers open for a limited time (often only a few hours at the beginning of the afternoon).

It is an insectivorous plant. If an insect lands on its leaves, the filaments they possess bend over them, trapping them, and then the leaf glands bathe them with secretions containing digestive enzymes similar to those of gastric juice and digest their prey, taking advantage of the nitrogenous and phosphorous



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compounds, which are scarce in the environments in which this species lives.

It blooms during the summer.

### Part used

The entire plant.

### Active ingredients

- Naphthoquinones: plumbagin or plumbagone (methyl-2-hydroxy-5-naphthoquinone-1-4), carboxy-hydroxy-naphthoquinone, rosoliside, methylhydrojuglone, droserone, 8-hydroxydroserone, ramentone (2-methyl-5,8-dihydroxy-1,4-naphthoquinone), ramentaceone (5-hydroxy-7-methyl-1,4-naphthoquinone) and isosinanolone (3-methyl-4,8-dihydroxy-1-tetralone). The naphthoquinone content varies, both quantitatively and qualitatively, depending on the species.
- Flavonoids: quercetin, hyperoside, isoquercitrin and 3-galactosyl-myricetin, whose content varies according to the species.
- Organic acids.
- Tannins.
- Anthocyanosides (give the red color to the hair).
- It also contains mineral matter, organic acids (malic, citric, gallic), mucilages and proteolytic enzymes.

### Pharmacological action

- Antispasmodic, at bronchial and intestinal level. Drosera exerts a bronchodilator effect on bronchial smooth muscle. In vitro studies on guinea pig ileus have shown that the extract of Drosera at doses of 0.5-1.0 mg/ml inhibits muscarinic M3 and histamine H1 receptors.
- Antitussive (by calming irritation of the laryngeal nerve).
- Expectorant and mucolytic.
- Antibacterial: inhibits the growth of Gram + bacteria (staphylococci, streptococci, pneumococci) and some Gram - (salmonella).
- Antifungal and antileishmaniasis.



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- Antisclerotic if used for long periods.
- Anti-inflammatory (plumbagin inhibits prostaglandin synthesis). In vitro assays on human neutrophils have shown that ethanolic extract of sundew inhibits neutrophil elastase at concentrations of 9.4 mg/ml.
- Some authors also consider it diuretic and hypoglycemic.
- In fresh state it is rubefacient.

### Indications

- Respiratory conditions: bronchitis, pharyngitis, laryngitis, asthma, whooping cough, spasmodic and irritating cough, etc.
- Highly recommended for people who have to strain their voice (teachers, singers, speakers, etc.).
- Digestive spasms.
- External use: neuralgia, osteoarticular inflammation, muscle contractures, myalgia, etc.

### Contraindications

No contraindications or interactions have been described.

- Pregnancy: Studies have been carried out on various animal species, using doses several times higher than those in humans, without any embryotoxic or teratogenic effects being recorded; however, clinical trials have not been carried out on humans, so the use of sundew is only accepted in the absence of safer therapeutic alternatives.
- Breastfeeding: It is not known whether the components of sundew are excreted in significant quantities in breast milk, and whether this could affect the child. It is recommended to stop breastfeeding or avoid the administration of sundew.
- It is recommended not to prescribe dosage forms containing alcohol to children under two years of age or to patients undergoing alcohol withdrawal.



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### Precautions

The presence of mucilages creates a potential risk of interaction because mucilages can delay or decrease the oral absorption of other active ingredients. It is therefore recommended to separate the dosages of sundew and other active ingredients.

### Side effects and toxicity

- They have not been described at the recommended therapeutic doses.
- Due to its plumbagin content, it can produce an abnormal color in the urine.
- However, data on possible genitourinary adverse reactions (urinary retention, oliguria, dysuria) and allergic/dermatological adverse reactions (maculopapular rash, erythema) have been collected in the FEDRA (Spanish Pharmacovigilance, Adverse Reactions Data) database of the Spanish Pharmacovigilance System.
- Overdose: At higher doses, plumbagone is cytotoxic.

### Studies

#### Clinical study on its anti-inflammatory and antispasmodic activity:

The ethanolic extract of *Drosera madagascariensis* has anti-inflammatory and spasmolytic action. The extract inhibits human neutrophil elastase in vitro (IC50 of 9.4 mg/ml). Naphthoquinones are not involved in this action, however, flavonoids such as quercetin (IC50 of 0.8 mg/ml), hyperoside (IC50 of 0.15 mg/ml) and isoquercitrin (IC50 of 0.7 mg/ml) contribute to the inhibition of the enzyme. In addition, the extract induces a spasmolytic effect in vivo on the guinea pig ileum, through cholinergic M3 and histamine H1 receptors. However, it does not show activity in vivo on prostaglandin PGF2a receptors in the guinea pig trachea. The naphthoquinone content would not intervene in the spasmolytic action, due to its low content in the extract.

Kolodziej H, Pertz HH, Humke A. Institut für Pharmazie, Pharmazeutische Biologie, Freie Universität Berlin, Berlin, Germany. Main constituents of a commercial *Drosera* fluid extract and their antagonist activity at muscarinic M3 receptors in guinea-pig ileum. *Pharmazie*. 2002 Mar;57(3):201-3. PMID: 11933852 [PubMed-indexed for MEDLINE].

#### Clinical studies on its antibacterial effect:



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The chloroform extract of the aerial parts of *Drosera peltata* is active, by agar diffusion tests, against *Streptococcus mutans*, *S. sobrinus*, *S. rattus*, *S. cricetus*, *S. sanguis*, *S. milleri*, *S. mitis*, *S. constellatus*, *S. oralis*, *S. salivarius*, *Prevotella oris*, *P. buccae* and *P. intermedia*, the main causes of periodontitis and the appearance of dental caries. This activity is attributed to plumbagone.

Didry N, Dubreuil L, Pinkas M. Laboratoire de Pharmacognosie, Faculte des Sciences pharmaceutiques et biologiques, Lille, France. Activity of anthraquinonic and naphthoquinonic compounds on oral bacteria. *Pharmazie*. 1994 Sep;49(9):681-3. PMID: 7972313 [PubMed-indexed for MEDLINE].

Didry N, Pinkas M, Dubreuil L. Antibacterial activity of naphthoquinones of plant origin. *Ann Pharm Fr*. 1986;44(1):73-8. PMID: 3777781 [PubMed-indexed for MEDLINE].

### Clinical studies on its composition:

Vinkenborg J, Sampara-Rumantir N, Uffellie OF. The presence of hydroplumbagin glucoside in *Drosera rotundifolia* L. *Pharm Weekbl*. 1969 Jan 17;104(3):45-9. PMID: 5774641 [PubMed-indexed for MEDLINE].

Bienenfeld W, Katzlmeier H. Flavonoids from *Drosera rotundifolia* L. *Arch Pharm Ber Dtsch Pharm Ges*. 1966 Jul;229(7):598-602. PMID: 5224884 [PubMed-indexed for MEDLINE].

