

PELAGON P-70™

Introduction:

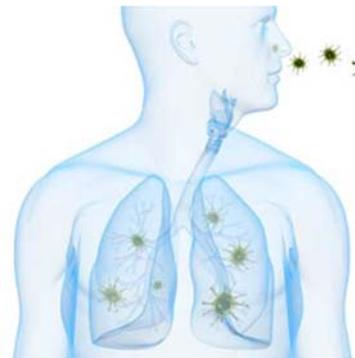
Pelagon-P70™ is a standardized dry extract of *P. sidoides* DC roots, a plant from Graniaceae family native from South Africa coastal areas. The roots have been used in the ethnobotanical tradition of the zulu, bantu and xhosa as a remedy for cough, cold, upper respiratory tract infections, and other complaints. In the EU it has been approved as a THMP (Traditional Herbal Medicinal Products) by EMA, based on the tradition of use in the treatment of acute bronchitis, sinusitis and other URTIs.

Health effects are due to polyphenolics complex and to coumarins (i.e. scopoletin, artelin and umckalin); the active compounds have indirect antiviral and antibacterial effects (stimulating non-antigen-specific immunity), anti-adhesivity action, and mucous-ciliary action.

Pelagon-70 is suitable for the formulation of tablets, hard gelatin capsules, effervescent formulas, suspensions, syrups, sprays and oral films.

Applications:

- Acute bronchitis
- Common cold
- Pharyngo-tonsillitis
- Sinusitis
- Anti-microbial
- Secretomotor
- Immuno-stimulant
- Anti-adhesive
- Antioxidant



✓ **Umckalin quantified in each batch (HPLC).**

✓ **Extraction solvent: ethanol 11% m/m**

✓ **Food grade**

✓ **Halal and Kosher certified**

✓ **Vegan/vegetarian suitable**

✓ **Origin: South Africa**

Mechanisms of action against respiratory tract pathogens:

1. **Direct antimicrobial action:** Demonstrated in vitro against influenza viruses H1N1 and H2N3, parainfluenza 3, cocksackie A9, coronavirus HCo229E, herpes simplex HSV-1 and HSV-2. *P. sidoides* inhibits neuraminidase and hemagglutinins preventing the replication and spreading of virions onto respiratory epithelium. The extract has been proven a direct bacteriostatic towards various respiratory pathogens including strains of multi-drug resistant *S. aureus* and mycobacteria. The direct antimicrobial action plays a synergistic role with respect to indirect mechanisms of actions and does not account, by itself, for the whole therapeutic effect.
2. **Indirect antimicrobial action:** It's the main mechanism of action. The root extract of *P. sidoides* potently stimulates non-specific immune defense by increasing the phagocytic activity of macrophages and their ability to attack and kill both intra- and extra-cellular pathogens. In the presence of the extract, the respiratory burst and the secretion of NO (free radical with cytotoxic action) increase. In activated macrophages it induces the secretion of defensive cytokines while stimulating synthesis and release of bactericidal and chemotactic proteins by neutrophils.
3. **Anti-adhesive action:** Demonstrated in vitro against Group A streptococcus (SAG) on cultured HcEp-2 epithelial cells. Inhibition has been attributed to prodelphinidins and is evident by pre-incubating bacteria with the extract but not epithelial cells alone meaning that *P. sidoides* polyphenols interact with adhesion proteins selectively present onto microorganism's surface.

4. **Secretory-motor action:** *P. sidoides* in vitro dose-dependently stimulates motility and muco-ciliary clearance and increased Ciliary Beat Frequency (CBF) in the respiratory epithelium. This mechanism potentially helps to clear pathogens from airways and reduces colonization.

Dosages:

30 mg, three in a day (morning, afternoon and evening)

Supplements based on **Pelagon P-70™** should be given at the onset of symptoms continuing the **treatment for 7-10 days** or, at least, for **3 days after recovery**.

Pelagon P-70™ is suitable to formulate solid dosage forms (capsules, tablets), granulates and suspensions.

Bibliography:

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2. Kolodziej H. Fascinating metabolic pools of *Pelargonium sidoides* and *Pe-largonium reniforme*, traditional and phytomedicinal sources of the herbal medicine Umckaloabo. *Phytomedicine* (2007). 14, 9-17.
3. Matthys H, Eisebitt R, Seith B, Heger M. Efficacy and safety of an extract of *Pelargonium sidoides* (EPs 7630) in adults with acute bronchitis. A rando-mised, double-blind, placebo-controlled trial. *Phytomedicine* 2003;10(Suppl IV): 7-17.
4. Lizogub VG, Riley DS, Heger M. Efficacy of *Pelargonium sidoides* prepara-tion in patients with the common cold: a randomized, double blind, placebo-controlled clinical trial. *Explore* 2007;3(6):573-84.
5. Bereznoy VV, Riley DS, Wassmer G, Heger M. Efficacy of extract of pelar-gonium *sidoides* in children with acute non-group A beta-hemolytic strepto-coccus tonsillopharyngitis: a randomized, double blind, placebo-controlled trial. *Alternative Therapies* 2003;9(5):68-79.