DAYONIX

CUSTOMIZED

Prodcuts

2021

DAYONIX®
PHARMA
LIVE HAPPILY®

www.Dayonixpharma.com

Dayonix Pharma Limited

Dayonix Pharma Limited, is a global healthcare company based in London, UK. Its products are specific in Food Supplements and OTCs medicines.

We have a various range of food supplements especially formulated for babies. All ingredients of our products are chosen by renowned pharmacists and physicians. We have specified direct dosages for babies with innovative new packaging that help parents to use them more conveniently.

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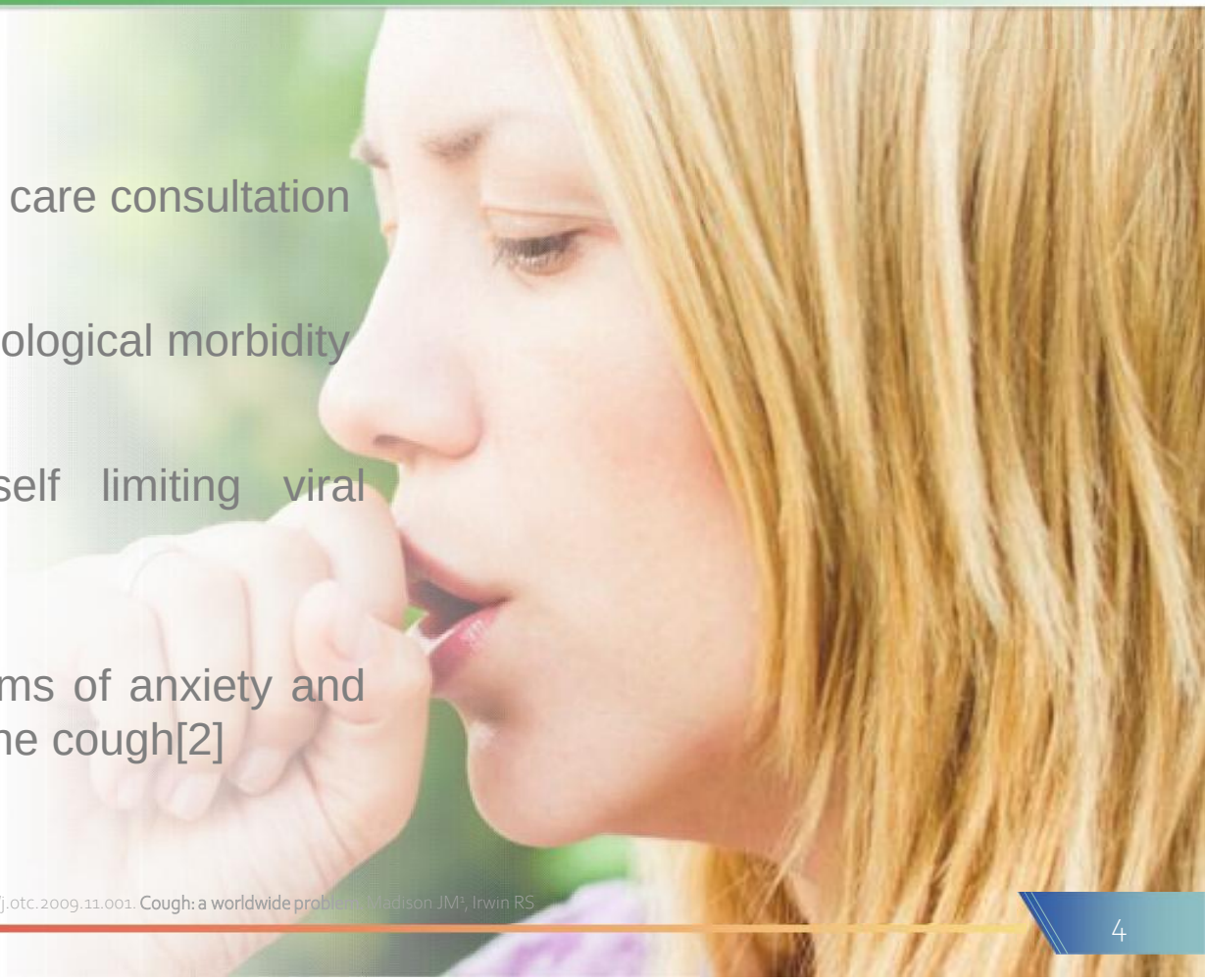
Building 3, Chiswick Business Park, 566 Chiswick High Road, London, W4 5YA, UK

DAYONIX
Respigen
Food Supplement
with sweetener
Ivy Dry Extract
Thyme Extract
Vitamins & Minerals
150 ml
Cherry
DAYONIX
CUSTOMIZED
Prodcuts
Respigen Syrup

Respigen
Cough



- One of the main causes of primary care consultation
- Comes with social, physical, psychological morbidity
- Commonly caused by acute self limiting viral respiratory tract infections[1]
- Chronic cough can cause symptoms of anxiety and depression that are secondary to the cough[2]

Otolaryngol Clin North Am. 2010 Feb;43(1):1-13, vii. doi: 10.1016/j.otc.2009.11.001. Cough: a worldwide problem. Madison JM[1], Irwin RS

Respigen
Cough

- **It is important to find and treat the underlying cause of cough:**
- **Acute cough**; lasting less than 3 weeks[3]
- Colds (common cold, URTI) and acute bronchitis
- Pneumonia, Influenza, Pertussis
- Exposure to smoke or allergens
- Acute left heart failure with congestion
- **Subacute cough**, lasting 3 to 8 weeks
- Bordetella pertussis infection should be included in the differential diagnosis[4]
- **Chronic cough;** lasts longer than 8 weeks[3]
- COPD (incl. acute exacerbation)
- Gastroesophageal reflux
- Upper airway cough syndrome (previously: postnasal drip syndrome)
- Adverse drug effects; ACEI
- TB
- Neoplasms

Otolaryngol Clin North Am. 2010 Feb;43(1):1-13, vii. doi: 10.1016/j.otc.2009.11.001. Cough: a worldwide problem. Madison JM[1], Irwin RS

Respigen
Cough

Popular Cough medicines through out the world are based on[5]:

- Herbal derivatives
- Dissolved in water, alcohol or other solvents
- With the addition of flavorings such as honey, syrup or sugar
- May have a definable specific action on one or more of the anatomic sites along the pathway involved in the cough mechanism

Respigen
Air pollution and Cough

Unique Formulation to combat cough for whole family

This supplement is effective and very well tolerated, being suitable for the whole family, children and adults alike.

It contains mainly Ivy, Thyme, and Astragalus.

Respigen Ingredients
Table of MAIN Ingredients

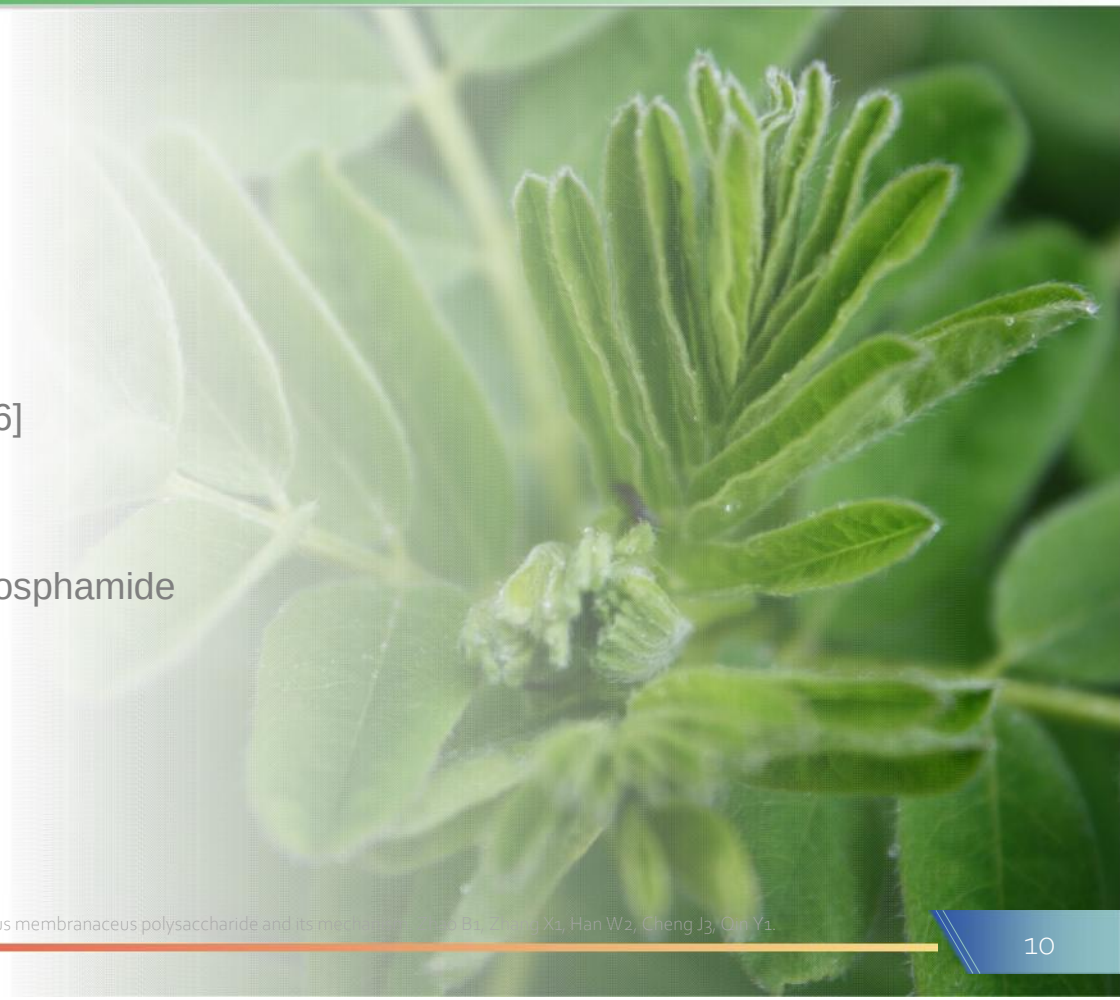
*mg=milligram

Respigen Ingredients
Table of Other Ingredients

*mg=milligram

Respigen Ingredients
Astragalus

- **Active constituents of[6]**
  - Saponins
  - Flavonoids
  - Polysaccharides
- Anti-inflammatory activity both in vitro and in vivo[6]
- Increases immune system
- It might decrease the effectiveness of cyclophosphamide and Immunosuppressants



Mol Med Rep. 2017 Jun;15(6):4077-4083. Wound healing effect of an Astragalus membranaceus polysaccharide and its mech[illegible] B1, Zh[illegible] X1, Han W2, Cheng J3, Qin Y1.

Astragalus Granule Combined Auricular Point Sticking for Cough Variant Asthma in Children[7]

- To observe the clinical efficacy and effect of Astragalus Granule (AG), combined with aerosol inhalation on the levels of
  - tumor necrosis factor-α (TNF- a)
  - interleukin-4 (IL-4),
  - interleukin-10 (IL-10),
  - eosinophil cell count (EOS),
  - and immunoglobulin E (IgE)

In cough variant asthma (CVA) children

- Conclusion:
  - AG could significantly reduce the levels of TNF-α, IL-4, EOS, and IgE, and improve the level of IL-10 in CVA children patients, with significant clinical effects
  - The cough alleviation time and the disappearance time were shortened in the combined group after treatment (P <0. 05)

Respigen Ingredients
Thyme

COMPOUNDS[8]

Volatile oil (LO-2.5%): chief components thymol (20-55%)

Flavonoids: Cirsilineol, 8-methoxycirsilineol, thymonin and eriodictyol.

- Bronchial antispasmodic agent: flavenoids relax the throat muscles involved in coughing and also lessen inflammation
- An expectorant agent: an expectorant effect on ciliary activity
- An antibacterial agent
- Approved by The German Commission E for:
  - Cough
  - Bronchitis
- Drug interactions: None documented
- Pregnancy and lactation: No known problem documented

Respigen Ingredients
Ivy Dry Extract

- **Secretolytical effects**
- **Broncholytical properties**

Saponins: Alpha-hederin:

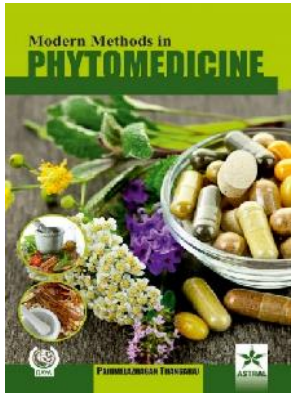
inhibits the internalization of the β2-receptor:

1. leading to an increased adrenergic accessibility of the type II alveolar epithelial cells:
   - Generating more surfactant: reduction of the mucus viscosity

2. Increased β2-adrenergic activity
   - Resulting in a higher sensitivity to spasmolytics such as adrenalin

Tolerance and effect of an add-on treatment with a cough medicine containing ivy leaves dry extract on lung function in children with bronchial asthma[11]

- Double blind, placebo-controlled, randomized cross-over study
- 30 children (median age 9.07 years (min-max: 6-11))
- Suffering from partial or uncontrolled mild persistent allergic asthma despite long-term treatment with 400 µg budesonide equivalent were investigated.
- Patients either received dry extract of ivy leaves for four weeks in addition to their inhaled corticosteroid therapy or placebo
- MEF75-25, MEF25 and VC which are among the secondary endpoints of the study, a significant difference between active treatment and placebo was shown
- **This proof-of-concept study indicates that children with mild uncontrolled asthma despite regular inhaled corticosteroid therapy might benefit from an additional therapy with ivy leaves dry extract. However, further studies are needed**



Systematic Review of Clinical Trials Assessing the Effectiveness of Ivy Leaf (Hedera Helix) for Acute Upper Respiratory Tract Infections[12]

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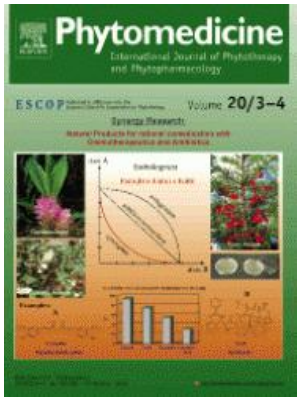
- 10 studies for inclusion into the review(total of 17463 subjects in treatment and control groups)
- Published between 1985 and 2009 and originated from a variety of countries (Germany n = 5, Switzerland n = 2, Latin America n = 2, Ukraine n = 1)
- All studies reviewed concluded that ivy leaf extract is effective for the treatment of URTIs or acute bronchitis
- A review of the regression of symptoms in children with acute cough observed that after 5 to 8 days, symptoms were improved or gone in 50–75% of patients or patients were assessed as recovered by their physicians
- Allergic reactions were reported in under 0.5% of cases with no cases of severe anaphylaxis mentioned in any study

Evidence-based Complementary and Alternative Medicine
IMPACT FACTOR 2.06

Tolerance, safety and efficacy of Hedera helix1 extract in inflammatory bronchial diseases under clinical practice conditions: A prospective, open, multicentre postmarketing study in 9657 patients[13]

- 9657 patients (5181 children) with bronchitis (acute or chronic bronchial inflammatory disease)
- Treated with a syrup containing dried ivy leaf extract
- 7 days of therapy
- 95% of the patients showed improvement or healing of their symptoms.
- The safety of the therapy was very good with an overall incidence of adverse events of 2.1% (mainly gastrointestinal disorders with 1.5%)
- **In conclusion, it is to say that the leaf extract of dried ivy is effective and well tolerated in patients with bronchitis**



Efficacy and Tolerability of a Fluid Extract Combination of Thyme Herb and Ivy Leaves and Matched Placebo in Adults Suffering from Acute Bronchitis with Productive Cough[16]

- This clinical study was designed to evaluate the efficacy and the tolerability of thyme-ivy combination compared to placebo
- 5.4ml three times daily (t.i.d.) for 11 days
- In adult outpatients suffering from acute bronchitis with productive cough as the main symptom
- Reduction in the mean frequency of coughing: a distinct advantage of the herbal drug (thyme-ivy combination($p < 0.0001$)
- A successful (50 %) reduction in coughing fits from baseline was reached 2 days earlier (from Day 6 to study end = Day 10) under treatment with thyme ivy combination compared to placebo
- **Treatment with the thyme-ivy combination resulted in a more rapid regression of symptoms particularly coughing In patients with acute bronchitis**
- **It was safe and well tolerated**

Respigen Ingredients
Peppermint

Components:

- **Volatile oil**: Chief components: menthol (35-45%), menthone (15-20)
- **Caffeic acid**
- **Flavonoids**
- Approved by Germen Commission E:
  - Common cold / fever
  - Cough/ bronchitis
- Menthol in peppermint soothes the throat and acts as a decongestant, helping to break down mucus[9]
- Drug interactions: None documented
- Pregnancy and lactation: No known problem documented

A Review of the Bioactivity and Potential Health Benefits of Peppermint Tea (Mentha piperita L)[10]

- The antitussive effect of menthol in guinea-pigs(Laude et al. (1994)):
  - 13 animals treated with 10 and 30 µg/L menthol vapors
  - 5 min prior to an aerosolized citric acid challenge compared with air (placebo)
  - The frequency of coughing was reduced 28 and 56%, respectively

- The oral administration of 200 mg 1,8-cineole thrice daily for 12 weeks (Juergens et al (2003)):
  - Enabled 32 patients with steroid-dependent bronchial asthma
  - To tolerate a 36% reduction in their daily prednisolone therapy (mean: 3.75 mg, range: 2.5– 10.0 mg)
  - Compared with a 7% reduction (mean: 0.91 mg, range: 2.5–5.0 mg) with placebo

Respigen Ingredients
Bromelain

- Bromelain is a proteolytic enzyme that is found naturally in the stems of pineapples
- Proteolytic enzymes like Bromelain can blast protective layer (shield) of microorganisms and allowing immune system to destroy them[13]
- Different studies have shown that Bromelin has an anti inflammatory effect specially on the nose and sinuses
- Acute or chronic sinusitis is one of the common causes of coughs

https://nutraceuticalasia.com/2016/07/14/bromelain/Bromalein
https://en.wikipedia.org/wiki/Bromelain_(pharmacology)

Therapeutic Use, Efficiency and Safety of the Proteolytic Pineapple Enzyme Bromelain-POS® in Children with Acute Sinusitis in Germany[15]

- To detect differences in the duration of symptoms between children treated with the proteolytic enzyme Bromelain-POS®, with a combination therapy of Bromelain-POS® and allopathica, or with allopathica alone
- Clinical data from 116 children up to the age of 11 years
- Children of the study group (bromelaine monotherapy) presented the shortest mean period of symptoms (6.66 days) as compared to those of the control groups
- Patients of the bromelaine monotherapy (study) group showed a statistically significant faster recovery time from symptoms ($p<0.005$)
- No adverse reactions of the bromelaine treatment were documented (Besides one mild self-limiting allergic reaction)

Respigen Ingredients
Vitamins and Minerals

- Low serum vitamin D levels were linked to an increased frequency in chronic cough and respiratory tract infections, while supplementation reduced the symptoms and frequency by over 50%(Ozdemir B et al, 2016)

- “A February 2003 study in the journal "Respiratory Medicine" found that vitamin C in the diet of young Norwegian adults who smoked lowered their coughing and wheezing”

- The significant differences were observed between the two groups in terms of improvements in coughing and wheezing 48 and 72 hours after the beginning of the treatment ($P<0.05$) with zinc supplementation in patients with acute bronchiolitis(Abolfazl Mahyar et al, 2016)

- A study by Michalska-Mosiej M et al 2016 showed that The serum concentration of Se, Zn, and Total antioxidant status in patients with Chronic tonsillitis, a common cause of cough was lower than normal poppulation

Respigen in a brief look

- Antitussive effect
- Expectorant effect
- Anti inflammatory effect
- Decongestant effect
- Mineral and vitamin combination
- Synergetic effect

- Effective in healing coughs caused by:
  - Allergic reactions/Asthma
  - Sinusitis
  - Bronchiolitis/bronchitis
  - Tonsillitis

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Respigen®

Respigen
Direction of Use

- 1 to 3 years: 2.5 ml twice daily, pure or diluted in water
- 3 to 12 years: 5 ml twice daily, pure or diluted in water
- Adults: 5 ml three times daily, pure or diluted in water

Recommendations:

- This product must not replace a varied balanced diet and a healthy lifestyle
- Do not exceed the advisable daily intake
- Keep the container in a cool and dry place, out of children's reach & sight
- Once opened keep it in fridge
- Not recommended in case of allergy to any of the ingredients
- Do not purchase if seal is broken or damaged
- If you are under medical treatment, consult your physician before taking supplements

References

1. Wang K, Milojevic N, Sheinman B, Usmani OS, Cough management in primary, secondary and tertiary settings, Pulmonary Pharmacology & Therapeutics (2017), doi: 10.1016/ j.pupt.2017.05.001.
2. French CL, Crawford SL, Bova C, Irwin RS, Change in Psychologic, Physiologic, and Situational Factors in Adults After Treatment of Chronic Cough, CHEST (2017), doi: 10.1016/j.chest.2017.06.024.
3. Felix Holzinger, Dr. med., Sabine Beck, Dr. med. Lorena Dini, Dr. med., Christiane Stöter, Dr. med. and Christoph Heintze, PD Dr. med, The Diagnosis and Treatment of Acute Cough in Adults, Dtsch Arztebl Int. 2014 May; 111(20): 356–363.,Published online 2014 May 16. doi: 10.3238/arztebl.2014.0356, PMCID: PMC4047603, PMID: 24882627,Clinical Practice Guideline
4. Otolaryngol Clin North Am. 2010 Feb;43(1):1-13, vii. doi: 10.1016/j.otc.2009.11.001. Cough: a worldwide problem. Madison JM1, Irwin RS
5. Irwin Ziment, Herbal Antitussives, Pulmonary Pharmacology & Therapeutics (2002) 15, 327±333 doi:10.1006/pupt.2002.0343, available online at http://www.idealibrary.com on 1
6. Xiaoxia Li et al, A Review of Recent Research Progress on the Astragalus Genus, Molecules. 2014 Nov; 19(11): 18850–18880. Published online 2014 Nov 17. doi: 10.3390/molecules191118850
7. Zhang LW, Reng MX, Xue GC, Shen LN, Xia H, Song YJ, Xia XX. Astragalus Granule Combined Auricular Point Sticking for Cough Variant Asthma in Children, Zhongguo Zhong Xi Yi Jie He Za Zhi. 2016 Nov;36(11):1308-1311.
8. Chemical Constituents of Plants Used as Herbal Medicines, Third edition, Joanne Barnes, Linda A Anderson and J David Phillipson
9. Shahnaz Sultana*, Andleeb Khan, Mohammed M Safhi And Hassan A. Alhazmi College Of Pharmacy, Jazan University, Jazan, Saudi Arabia, Cough Suppressant Herbal Drugs: A Review, International Journal of Pharmaceutical Science Invention, ISSN (Online): 2319 – 6718, ISSN (Print): 2319 – 670X www.ijpsi.org Volume 5 Issue 5 ǁ August 2016 ǁ PP. 15-28

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Thank You

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References

10. Diane L. McKay* and Jeffrey B. Blumberg A Review of the Bioactivity and Potential Health Benefits of Peppermint Tea (Mentha piperita L.) Y OF PEPPERMINT TEA 619, 2006 John Wiley & Sons, Ltd. Phytother. Res. 20, 619–633 (2006) DOI: 10.1002/ptr Copyright © 2006 John Wiley & Sons, Ltd. PHYTOTHERAPY RESEARCH

Phytother. Res. 20, 619–633 (2006) Published online 12 June 2006 in Wiley InterScience

(www.interscience.wiley.com) DOI: 10.1002/ptr.193611. Zeil, S., et al., Tolerance and effect of an add-on treatment with a cough medicine containing ivy leaves dry extract on lung function in children with bronchial asthma. Phytomedicine (2014), http://dx.doi.org/10.1016/j.phymed.2014.05.006

12. Felix Holzinger and Jean-François Chenot, Systematic Review of Clinical Trials Assessing the Effectiveness of Ivy Leaf (Hedera Helix) for Acute Upper Respiratory Tract Infections, Evid Based Complement Alternat Med. 2011; 2011: 382789. Published online 2010 Oct 3. doi: 10.1155/2011/382789

13. S.Fazio J.Pouso, D.Dolinsky. Tolerance, safety and efficacy of Hedera helix1 extract in inflammatory bronchial diseases under clinical practice conditions: A prospective, open, multicentre postmarketing study in 9657 patients. Phytomedicine. Volume 16, Issue 1, January 2009, Pages 17-24

14. https://nutraceuticalasia.com/2016/07/14/bromelain/Bromalein

15. J.M. BRAUN, B. SCHNEIDER and H.J. BEUTH, Therapeutic Use, Efficiency and Safety of the Proteolytic Pineapple Enzyme Bromelain-POS® in Children with Acute Sinusitis in Germany, in vivo 19: 417-422 (2005)

16. Bernd Kemmerich, Reinhild Eberhardt, and Holger Stammer Efficacy and Tolerability of a Fluid Extract Combination of Thyme Herb and Ivy Leaves and Matched Placebo in Adults Suffering from Acute Bronchitis with Productive Cough A prospective, double-blind, placebo-controlled clinical trial