

Opti coughPan[®]

SYRUP



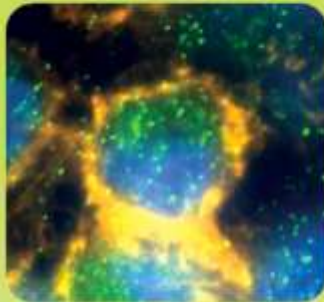
Play all the **day**

... Sleep all the **Night**

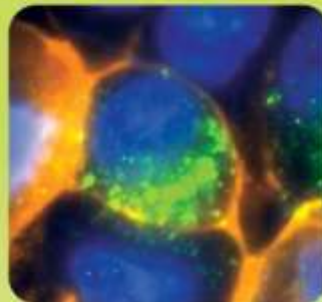
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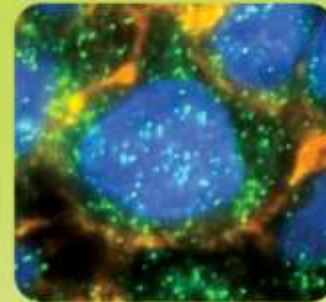
Immunohistochemical detection of β_2 receptors of alveolar cells type II (green fluorescent)⁽³⁾



A) Untreated A 549-Cell



B) Internalization of β_2 receptors after stimulation with $10 \mu\text{M}$ terbutalin



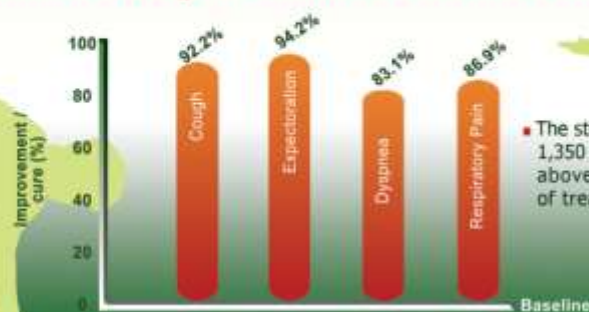
C) Inhibition of β_2 receptor internalization within stimulating conditions ($10 \mu\text{M}$ terbutalin) resulting from preincubation with $1 \mu\text{M}$ α -hederin

ALPHA -HYDRINE magnify the bronchodilator signals

SIGNIFICANT DROP IN THE ENDOCYTOSIS OF B-2 RECEPTOR (50-80%) THROUGH ALFA -HYDRINE DEPENDING ON THE CONCENTRATION ⁽⁴⁾

- **Expectorant** the ivy leaf extract contains emetine which has Expectorant effect on respiratory secretion⁽⁵⁾
- **Mucolytic** through gastric parasympathatic stimulation to bronchial glands for more thin secretions that easily cough up.⁽⁶⁾

(Disinctive Improvement of Chronic Bronchitis symptoms)



● The study included 1,350 male and female patients, above 4 years old for 4 weeks of treatment (Multi-centers study-Germany)⁽⁷⁾

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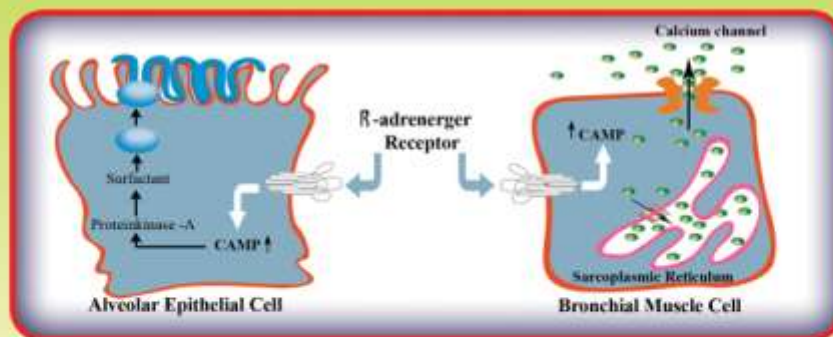
SYRUP

COPD
Acute bronchities
chronic bronchities
Asthmatic Bronchities

» Over stimulation of β_2 Receptor (Adrenaline- Turbutaline)

» Internalization of β_2 Receptor [endocytosis of the receptor]

ALPH-hydrine inhibit the internalization of β_2 receptor⁽¹⁾



Stimulation of beta 2 receptors will

Increase Surfactant production

- 1- Optimize ventilation of the lung
- 2- Improve transport of mucous
- 3- Lower the mucus viscosity (liquifies mucous)(**mucoytic**)⁽²⁾

Lower intracellular . Ca⁺⁺

Relaxation of bronchial ms (broncho - dilator).

Surfactant:

is a mixture of substances which protect the alveoli from collapsing at the end of the expiration phase by lowering the surface tension of the liquid film on the alveoli.



Opti coughPan®

Peaceful nights sleep SYRUP

Composition:

0.7 gm Dried ivy leaf extract in 100 ml solution.

- Marked improvement in obstructive airway symptoms and well tolerated in the same time.
- Non stop actions (Broncho-Spasmolytic / Mucolytic / Expectorant / Anti Inflammatory Antioxidant) .
- Remarkable improvement in lung functions (VC.FEVI. PEF. AIRWAY RESISTANCE)
- Approved by German Commission E.⁽⁸⁾
- Pleasant orange taste accepted by children and adults

Indication:

- Acute inflammation of respiratory tract accompanied by cough.
- Acute and asthmatic bronchitis.
- Bronchial asthma and wheezy chest.
- Chronic bronchitis
- Chronic obstructive pulmonary diseases

Dosage:

Children below 5 years	→	2.5	ml	three times daily
Children above 5 years	→	5	ml	three times daily
Adults above 12 years	→	7.5 - 10	ml	three times daily

Pack:

Bottle of 100 ml / Bottle of 120 ml

Reference:

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