

THYMOX

Thymus vulgaris L. dry powdered extract 0,30% thymol

THREE MAIN REASONS TO CHOOSE THYMOX-EPO:



QUALITY

Manufacturing process entirely made in Italy

Full traceability from the field to the final packaging

Production chain checked at every step

Accurate quantification of bioactive compounds
by sophisticated analytical methods

Compliance with EU legislation
on Food and Food Supplements



SAFETY

Botanical species certified by
DNA barcoding analysis

No harmful solvent used
in the manufacturing process




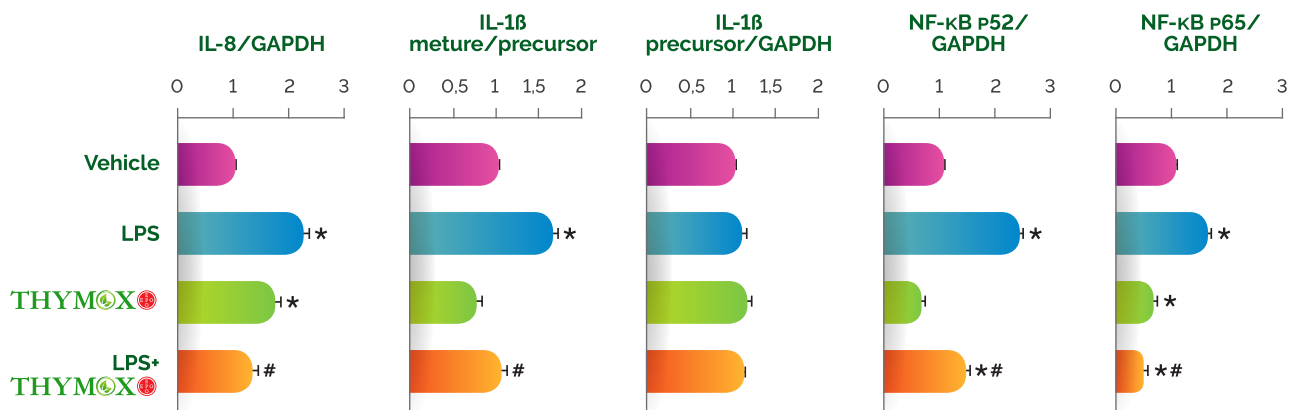
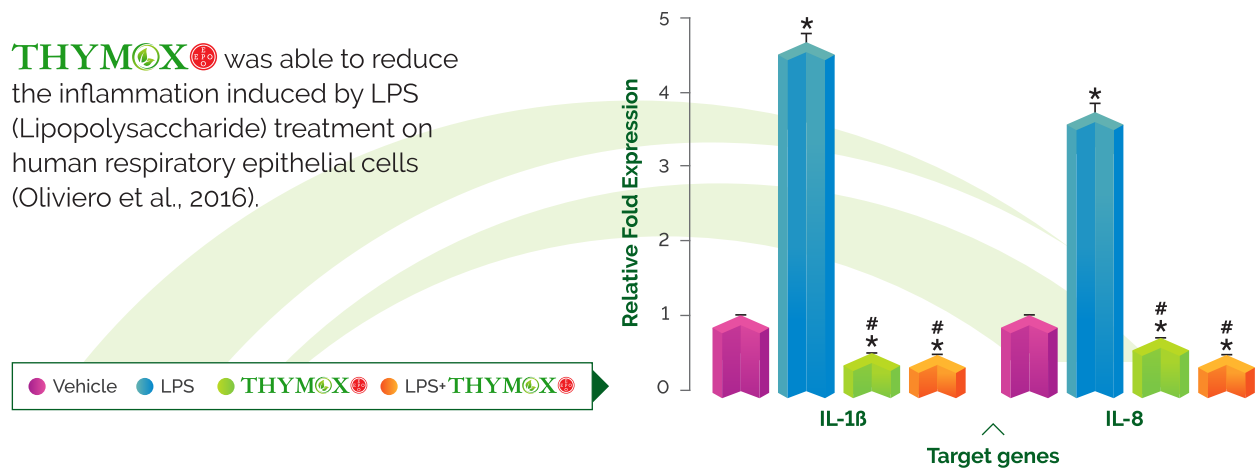
EFFICACY

Two pre-clinical studies proving
a double effect: anti-inflammatory for the
respiratory system and expectorant

Thyme is a well-known Mediterranean plant, belonging to the *Lamiaceae* family. Thyme has been traditionally used since ancient times as a natural remedy for cough and for many other purposes, as digestive, spasmolytic, carminative and antioxidant. The actives are mainly concentrated in the aerial parts, collected at blooming time. Thyme contains essential oils (as thymol), tannins, flavonoids and triterpenes.

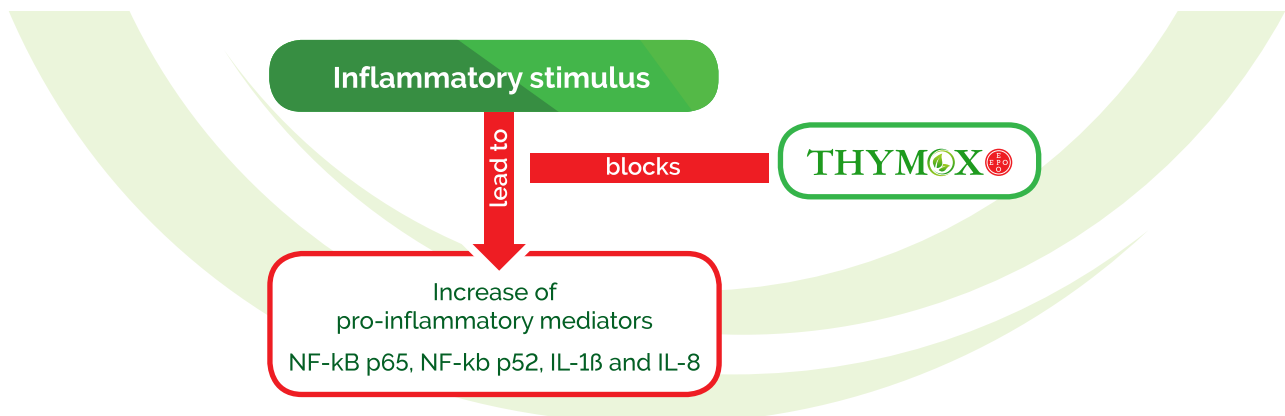
ANTI-INFLAMMATORY ACTIVITY

THYMOX  was able to reduce the inflammation induced by LPS (Lipopolysaccharide) treatment on human respiratory epithelial cells (Oliviero et al., 2016).



THYMOX  SHOWS ANTI-INFLAMMATORY EFFECTS BY DECREASING:

- pro-inflammatory mediator proteins as NF-kB p65 and NF-kB p52
- pro-inflammatory cytokines IL-1β and IL-8, at both mRNA and protein levels.

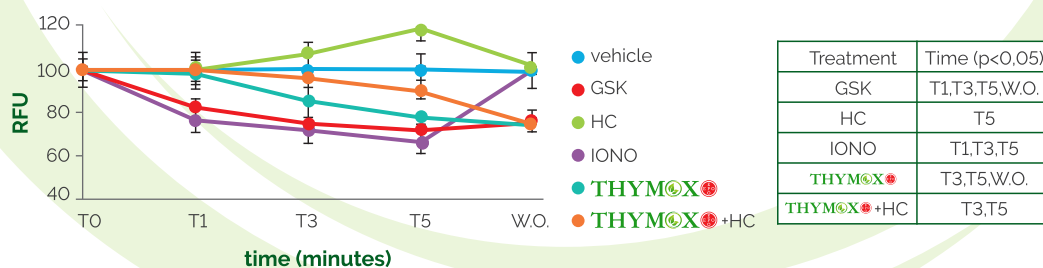
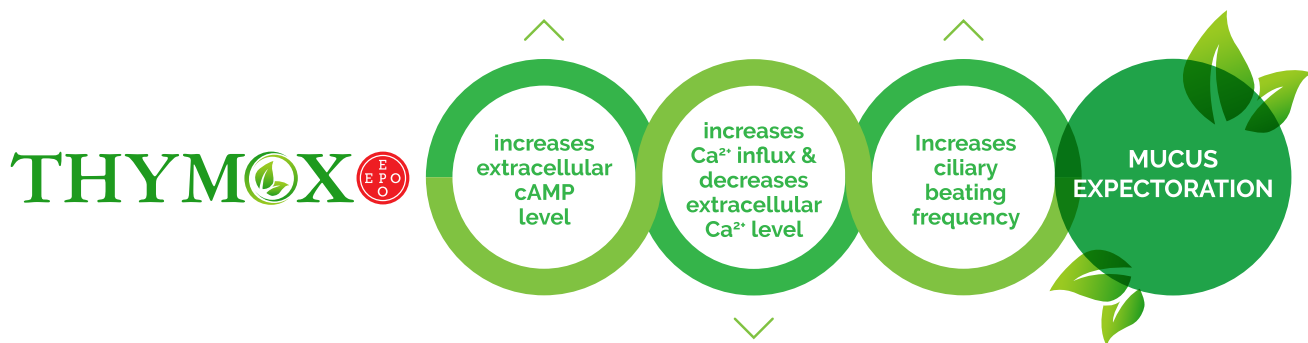
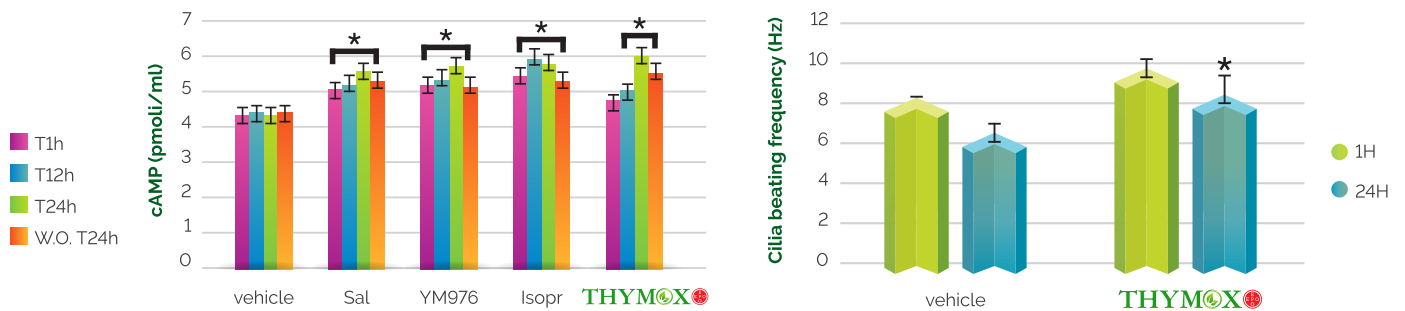
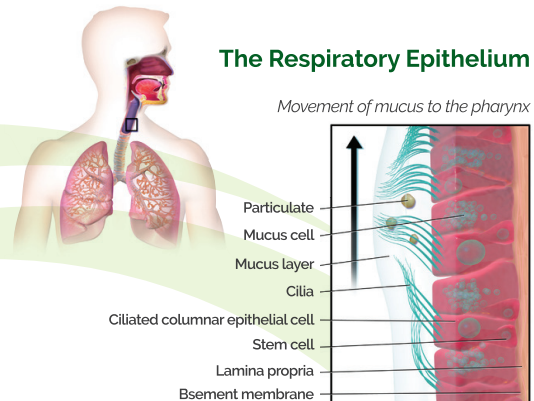


Thymox-EPO is a dry powdered extract, obtained from *Thymus vulgaris* L. aerial parts by hydro-alcoholic extraction. **Thymox-EPO** is standardized to contain 0.30% thymol. The botanical species is certified by DNA barcoding analysis. The efficacy of **Thymox-EPO** is based on pre-clinical evidence, proving its double effect as an anti-inflammatory and expectorant agent; that makes **Thymox-EPO** suitable for respiratory tract inflammations, asthma, dry and productive cough.

EXPECTORANT ACTIVITY

The respiratory tract has epithelial cells characterized by cilia on the surface.

The expectoration consists in the movement of mucus through the respiratory tract thanks to an efficient beating of the cilia, a Ca^{2+} -mediated mechanism.



Thymox-EPO helps the mucus clearance by increasing the frequency of beating and therefore acting on the efficiency of cilia movements

cAMP level was calculated by evaluating the effect of conventional drugs (Salmeterol, YM976, Isoproterenol) and Thymox vs a control (vehicle) at different time (1h, 12h, 24h); *p < 0.05 vehicle vs treatments. Ca^{2+} level was calculated as % of RFU (relative fluorescent units) vs vehicle, by evaluating conventional drugs (GSK1016790A, HCO67047, Ionomycin) and Thymox at different time (1m, 3min, 5min and Wash Out).



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THYMOX  technical datasheet is available at www.eposrl.com

REFERENCES:

1. Blausen.com staff. Medical gallery of Blausen Medical 2014. WikiJournal of Medicine 1, 2014.
2. Oliviero M, Romilde I, Morelli MB, Valisi M, Nicotra G, Amantini C, Cardinali C, Santoni G, Maggi F, Nabissi M. Evaluations of thyme extract effects in human normal bronchial and tracheal epithelial cell lines and in human lung cancer cell line. Chem Biol Interact. 2016 Aug 25; 256:125-33.
3. Nabissi M, Oliviero M, Morelli MB, Innarelli R, Nicotra G, Amantini C, Santoni G, Maggi F. Regulation of mucociliary beating frequency, by thyme extract in primary cell lines derived from patients affected by chronic obstructive pulmonary disease. Report 2017.