

PHYTOR

Consulting in Human Health, Toxicology & Regulatory Affairs

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Summary for the Product ENERGYMEL

Aging, underlying illness, overexertion and daily stress are all common causes of fatigue. Stimulants are generally used to boost energy. *ENERGYMEL* is a product from Zuf Globus which is not a stimulant. It aims at fending off the effects of stress and aging by restoring energy naturally and strengthening the homeostasis. It acts as an adaptogen with strong antioxidant and anti-inflammatory activities as well as anti-stress activity and may boost mental performance. The product is recommended for healthy people who want to strengthen the body systems and fight agents that cause stress. It is important to notice that healthy habits like exercising, drinking a lot of liquids and a proper amount of sleep are required for a better performance of *ENERGYMEL*.

The unique blend of herbs which comprise the bees' feed used to produce is long recognized as energy-boosting herbs that can help fight the effects of stress and restore energy naturally, as opposed to stimulants such as caffeine which indeed give the body an extra boost. However, in the long run it can actually leave you even more tired.

The biological activities of the herbs found in *ENERGYMEL* are recorded on the WHO monographs and are corroborated by numerous peer-reviewed scientific publications.

The main biological activities of *ENERGYMEL* related to its herbal components is listed below:

1) *Aralia racemosa*

The major groups of compounds found in this plant are terpenoids, saponins and acetylenic lipids. These are thought to produce anti-inflammatory effects, as well as hypoglycemic and hepato-protective effects. In addition, some reports suggest that these compounds may protect the cardiovascular system against ischemic events.

2) *Angelica atropurpurea (dong quai , Angelica sinensis)*

The major chemical constituent of the roots is alkyl ligustilide. Other characteristic components are terpenes (mainly β -cadinene and carvacrol), phenylpropanoids, benzenoids and coumarins. Recent experimental evidences suggest that these phytochemicals act as immunoregulators and antioxidants as well as producing neuroprotective and memory amelioration effects

3) *Inula helenium*

The main active ingredients are sesquiterpene lactones, mainly alantolactone, isoalantolactone and alloalantolactone. In experimental models, these compounds exhibit potent anti-oxidant and anti-inflammatory activities, as well as exert antimicrobial functions.

4) *Plantago major*

Plantago major main chemical constituents are the flavonoids hispidulin, luteolin and apigenin. fatty acids and polysaccharides were also identified.

Several experimental reports support the use of these compounds produce a wide range of pharmacological activities, including anti-inflammatory, Antinociceptive and antimicrobial.

5) *Vitex agnus-castus*

Two major group of compounds are found in this plant: Flavonoids (Casticin, Cymaroside and Chrysoptanol D are the major) and Diterpenes (Vitexilactone, Rotundifuran and Vitexlactam A). These herbal compounds are recognized by the monographs to play a role in hormonal balancing. In addition, both experimental and clinical data point to the ability of these ingredients in aiding and enhancing fracture healing.

6) *Eleutherococcus senticosus*

Eleutherococcus senticosus, also called Siberian ginseng, was reported to have adaptogenic/ anti-stress activity and may boost mental performance. In addition, it may stimulate the immune system. *Eleutherococcus senticosus* also shows anti-microbial and antioxidant activities.

7) *Schisandra chinensis*

The major groups of chemicals are dibenzocyclooctadiene lignans, mainly Schisandrin A and B. Experimental reports show the evidence that these compounds act as potent anti-oxidant and anti-inflammatory agents. Additional studies suggest that these compounds can provide neuroprotection and cognitive enhancement.

8) *Panax ginseng*

The major chemical constituents are triterpene saponins and various forms of ginsenosides. Experimental data indicate their immunomodulatory as well as adaptogenic effects. In addition, clinical studies point to the fact that these herbal ingredients significantly elevate oxygen uptake during exercise, thus acting as antifatigue mediators.

**Bibliographic References in addition to the WHO monographs regarding the
herbal substances in the formula.**

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