

PHYTOR

Consulting in Human Health, Toxicology & Regulatory Affairs

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Jerusalem May 23, 2020

Summary for the Product DefenseMel (HizukMel)

DefenseMel is a product from Zuf which aims at strengthening the homeostasis by acting as an immunomodulator and 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.

The unique blend of herbs which comprise the bees' feed is long recognized for their biological activities on the different body systems. These biological activities are recorded on the WHO monographs and are corroborated by numerous peer-reviewed scientific publications.

In herbalism, Adaptogenic is a term used to reflect the ability of a plant to work as a biological response modifier. To be considered as an adaptogen, the plant should not cause any harm or additional stress on the body, It should help the body adapt to many and varied environmental and psychological stresses and to have a nonspecific action on the body, supporting all the major systems. That is in a nutshell what DefenseMel is designed for.

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

1) *Uncaria tomentosa*

Uncaria tomentosa has been used for centuries in various medical conditions. There are some conditions reported to be improved by *Uncaria tomentosa*, including arthritis, viral infections and cancer (acting as a non-specific immunomodulation agent). In addition, this herb may also have potential as an immunomodulating adaptogen in cellular aging.

2) *Echinacea purpurea*

Echinaceae Purpureae immune-stimulation activity has been widely described in the scientific literature.

Oral administration has been reported as a supportive therapy for colds and infections of the respiratory and urinary tract. These beneficial effects are generally thought to be brought about by stimulation of the immune response mainly by activation of phagocytosis and stimulation of fibroblasts.

3) *Beta vulgaris*

Beta Vulgaris displayed potent antioxidant, anti-inflammatory and chemo-preventive activity *in vitro* and *in vivo*. In addition, as a source of nitrate, it can be beneficial in increasing nitric oxide (NO) availability in pathologies such as hypertension.

4) *Medicago Sativa*

There are numerous reports from *in vivo* studies showing that *Medicago sativa* can lower blood cholesterol levels. In addition it may relieve menopause symptoms.

5) *Sambucus Nigra*

This herb has strong anti-inflammatory and diuretic activity. A recent study reports an anti- influenza activity (the common flu virus)

6) *Polygonum Aviculare*

This component of the formula has shown to have diverse biological functions including hepato-protective effects, anti-inflammatory and platelets and anti-aggregatory effect.

In addition, recent study reports the *Polygonum aviculare* may reduce fatigue by suppressing neuroinflammation.

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7) *Eleutherococcus Senticosus*



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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 activity.

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

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