Ayurvedic Proprietary Medicine

INTAS

Thymotas
12.5 mg

Product Information
Thymotas is a patented research formulation of thymoquinone as a stable, standardized and ready to use tablet developed by Intas for the first time in the world.

Nigella Sativa, has been used in different forms to treat many diseases including asthma, hypertension, diabetes, inflammation, cough, bronchitis, headache, eczema, fever, dizziness and influenza. Most of its pharmacological beneficial properties are attributed to Thymoquinone, a most abundant compound in *Nigella Sativa*.

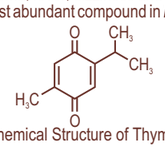

Figure: Chemical Structure of Thymoquinone

Scientific researches and pharmacological properties
There are abundant scientific publications available on thymoquinone. It has been investigated for its antiviral, antibacterial, antioxidant, anti-inflammatory, antidiabetic, anticancer and hepatoprotective properties besides many others.

Antiviral Properties:
Thymoquinone has been shown to inhibit the murine cytomegalovirus (CMV) replication in the spleen and liver of the infected mice. Moreover, treatment with thymoquinone also increased the levels of serum interferon-γ (IFN-γ) and numbers of CD4+ T cells and macrophages. Treatment of hepatitis C virus (HCV)-infected patients resulted in increase in red blood cell count and antioxidant activity, and protein level decreased with lower viral load. Recently, a combination of thymoquinone and curcumin showed a synergistic effect against avian influenza virus (H9N2) in turkeys. Moreover, this combination also augmented the antiviral immune response of turkeys. Thymoquinone has been shown to inhibit the survival of Epstein-Barr virus (EBV)-infected B cells.

Antibacterial Effect:
It showed broad antibacterial effects against many species of Gram-positive and Gram-negative bacteria as well. Gram-positive bacteria such as Bacillus cereus, S. aureus, and S. epidermidis have shown more susceptibility to it. Moreover, it also showed activity against Methicillin-Resistant Staphylococcus aureus (MRSA). Thymoquinone has been shown to effectively inhibit the formation of biofilm in some bacterial strains including S. aureus, S. epidermidis, Enterococcus faecalis, and P. aeruginosa. Thymoquinone has been found to be a potential drug against both drug-susceptible and drug-resistant M. tuberculosis as well.

Anti-inflammatory Properties:
Thymoquinone has been described to have amazing anti-inflammatory activity and targets various sites. It has been shown to downregulate the expression of pro-inflammatory and proliferative mediators such as tumor necrosis factor (TNF), inducible NOS, COX-2, 5-lipoxygenase, and cyclin D1. It also inhibited the activation of transcription factor Nuclear Factor kappa B (NF-κB), Akt, and extracellular signal-regulated kinase (ERK) signalling pathways. Suppression of NF-κB activation makes thymoquinone a potentially effective inhibitor of inflammation, proliferation, invasion, tumor cell survival, and angiogenesis.

Antioxidant Properties:
Thymoquinone has been shown to act as potent antioxidant by scavenging anion and ROS (reactive oxygen species). It can improve ischemic reperfusion injury conditions and reduce ROS in the intestine, heart, and kidney. It can ameliorate multiple organ toxicity in oxidative stress models as well. It affects the activity of several enzymes that protect against free radicals involved in the antioxidant system of the cell. Evidently, thymoquinone suppresses the enhanced level of lipid peroxidation (LPO) showed by reduced malondialdehyde (MDA) level which could be recognized as its strong antioxidant potential. The quinone structure of thymoquinone has redox properties which is associated with its antioxidant effect. Additionally, its immeasurable capability to cross morphophysiological barriers leads to its easy access to subcellular compartments and facilitates the radical scavenging effect.

Antidiabetic properties:
Thymoquinone is quite effective in protecting the β-cells of pancreas from damage due to oxidative stress and it decreases hepatic gluconeogenesis. It prevents insulin resistance, protein glycation, and diabetic nephropathy and has many other antidiabetic properties. The antioxidant, cytoprotective and immunomodulating actions of thymoquinone may be pharmacologically relevant in treating diabetes and its complications.

Anticancer properties:
Thymoquinone shows an important role in the induction of apoptosis as well as cell cycle arrest in cancerous cells through the upregulation of PTEN (Phosphatase and tensin homolog) gene and cyclin-dependent kinase inhibitor. A novel molecular target of thymoquinone against numerous cancerous cells or inhibition of cancer growth is the modulation of protein kinase, NF-κB, angiogenesis and tumorigenesis. Numerous studies based on animal model and laboratory research have been performed to assess the potentiality of thymoquinone in cancer prevention.

Hepatoprotective properties:
The hepatoprotective activity of thymoquinone has been studied extensively. It has been found to be an excellent natural protective agent against hepatotoxicity and liver diseases in experimental animal models. The antioxidant capacity of thymoquinone was found to play a major role in the hepatoprotection. Therefore, thymoquinone is a potential natural remedy to protect the liver from many toxic agents and drugs; and for the treatment of liver diseases.

Dose of Thymotas:
The recommended dose of Thymotas:
- As immune booster: 12.5 mg per day
- As adjunct to infection treatment: up to 50 mg per day based on severity of infection or as directed by the physician.
- Tablets to be taken after meal
- To be swallowed as whole and not to be chewed or crushed

Precautions:
It is not recommended to be used in pregnant and lactating women. Its effectiveness and safety have not been studied in paediatric population.

Safety:
The scientific value of thymoquinone is established since decades and proven with several publications reflecting its inherent safety. Thymotas has been safely administered up to 1000 mg single dose in healthy subjects. 100 mg daily for three months has also been safely administered to diabetic patients. In some people higher doses of Thymoquinone may cause abdominal discomfort, diarrhoea etc. which are generally mild and transient in nature.

Storage:
Store below 25°C.

Presentation:
Thymotas 12.5 mg available in a bottle of 30 Tablets.

Manufactured by:
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