

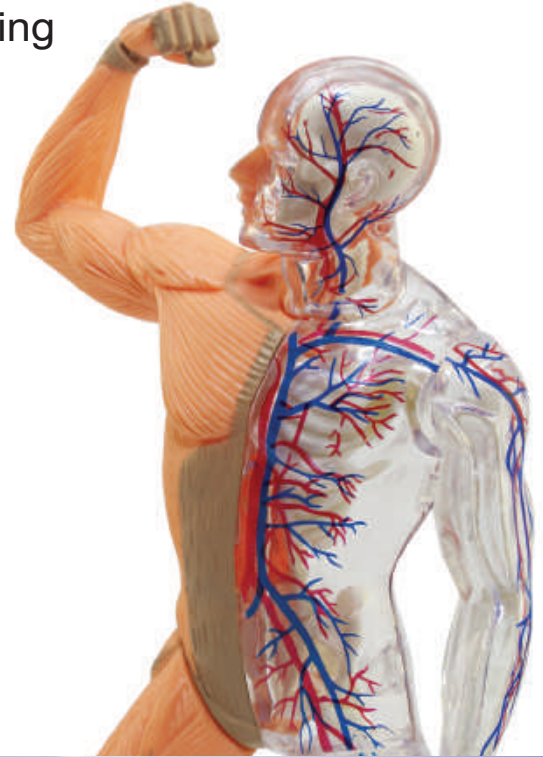


# LA<sup>♥</sup>ITOL<sup>®</sup> DHQ

Dihydroquercetin (Taxifolin)

Over 20 studies have been published highlighting dihydroquercetin's circulatory and respiratory benefits including:

- **POWERFUL ANTIOXIDANT**
- **CARDIOVASCULAR HEALTH**
- **HEALTHY BLOOD PRESSURE**
- **HEALTHY CHOLESTEROL LEVELS**
- **IMMUNE HEALTH & FUNCTION**
- **LIVER HEALTH**
- **RESPIRATORY HEALTH**
- **REDUCING OXIDATIVE STRESS**
- **NEUROPROTECTIVE**
- **OPHTHALMO-PROTECTIVE**
- **SAFE**



Only Lavitol<sup>®</sup> DHQ is made with Ametis patented extraction process from the stumps of 100-200 year old Dahurian Larch trees. The Larch trees ability to withstand the severe cold of the forests of Siberia make for a uniquely clean extraction process due to the rich deposits of dihydroquercetin left in the stumps. Utilizing the stumps left behind by the logging industry helps clear the area for new saplings!



### PROVEN SYNERGY WITH VITAMIN C

- **Helps Vitamin C recirculate throughout the body.**
- **Limits the inactivation or oxidation of Vitamin C.**

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## The Dihydroquercetin (Taxifolin) Advantage

### Dihydroquercetin (Taxifolin) adjuvant therapy improves acute pneumonia recovery

One randomized controlled trial involving 112 otherwise healthy men, aged 19 to 40 years, confirms dihydroquercetin (taxifolin) is an effective adjuvant treatment for acute pneumonia.<sup>1</sup> Oral taxifolin (40-60 mg, four times per day) was used throughout the acute and subacute period (first 14 days after hospitalization). Standard therapy included antibiotic, analgesic, general health strengthening and physiotherapeutic treatments. Compared to standard therapy alone, adding dihydroquercetin (taxifolin) resulted in faster recovery of physical signs of acute pneumonia (e.g., lung tissue recovery, pulmonary fibrosis, lung function). These actions are attributed to its ability to reduce oxidative stress.

### Dihydroquercetin (Taxifolin) exerts whole-body benefits

An extensive 2019 review<sup>2</sup> summarizes with potential health-promoting effects of dihydroquercetin (taxifolin), based on preclinical research. These include antioxidant, cardioprotective, hepatoprotective, anticancer, antimicrobial and neuroprotective activities (see Table). For the most part, these actions are attributed to its powerful antioxidant capacity. In vitro<sup>3,4,5</sup> and animal<sup>6</sup> studies indicate taxifolin has immunomodulating actions and potential immune health benefits. Separately, one animal study<sup>7</sup> (rat) reveals taxifolin converts to numerous metabolites in vivo, many of which with related bioactivity, suggesting an additive effect.

### Dihydroquercetin (Taxifolin) is superior to quercetin

Results from a series of animal studies<sup>8</sup> show dihydroquercetin (taxifolin) has more antioxidant capacity and protective benefits than regular quercetin. For example, dihydroquercetin (taxifolin) was found to be superior to quercetin for protecting capillary function in a dose-dependent manner: 3.4 times better at 100 mg/kg and 4.9 times better at 300 mg/kg. This action is attributed to its hydroxyl group (-OH) on the aromatic ring, which quercetin lacks.<sup>9</sup>

### Dihydroquercetin (Taxifolin) has an excellent safety profile

Lavitol® dihydroquercetin extract is affirmed GRAS (Generally Recognized as Safe) in the United States for use in foods and supplements. The European Union's EFSA Panel has concluded taxifolin-rich extracts from Dahurian larch are safe for adults and children 14 years and older. The conditions of use include 100mg/day of dihydroquercetin (taxifolin) from food supplements<sup>10</sup>.

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2. Sunil C, et al. *Phytochemistry.* 2019;166:112066.
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4. Haraguchi H, et al. *Biosci Biotechnol Biochem.* 1996;60(6):945-8.
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6. Gupta MB, et al. *Japan J Pharmacol.* 1971;21:377-382.
7. Yang P, et al. *Molecules.* 2016;21(9):1209.
8. Kolhir VK, et al. *Phytother Res.* 1996;10: 478-482.
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10. EFSA Panel. *EFSA J.* 2017;15(2):4682.

## Taxifolin Pre-Clinical Study Findings<sup>2</sup>

### Antioxidant Activity

- Scavenges free radicals
- Interacts with enzymes
- Chelates transition metal ions
- Promotes cell viability
- Exhibits antioxidant-mediated anti-inflammatory effects

### Cardiovascular Activity

- Reduces oxidative stress
- Protects capillary action
- Increases activities of antioxidant enzymes
- Reduces lipid peroxidation
- Increases free radical scavenging

### Hepatoprotective Activity

- Increases activities of antioxidant enzymes
- Increases free radical scavenging

### Antimicrobial Activity

- Interacts with enzymes
- Chelates iron
- Inhibits cell cycle regulators
- Inhibits oxidation by activating phase II metabolizing enzymes
- Inhibits formation of new blood vessels by inducing apoptosis and preventing angiogenesis
- Modulates gene expression to be chemo-protective via antioxidant activity
- Promotes cell viability

### Neuroprotective Activity

- Antimicrobial activity in cell culture studies against numerous pathogenic bacteria

### Neuroprotective Activity

- Inhibits formation of amyloid plaques associated with Alzheimer's disease
- Restores vascular integrity and memory in mouse model of cerebral amyloid angiopathy
- Inhibits oxidative neuronal injuries