



## Product Information

**Product ID** L1682

**CAS No.** 16595-80-5

**Chemical Name** Imidazo(2,1-b)thiazole,2,3,5,6-tetrahydro-6-phenyl-, monohydrochloride, (-)- (8Cl)

**Synonym** Tetramisole hydrochloride, Citarin L, Ergamisol, Spartakon

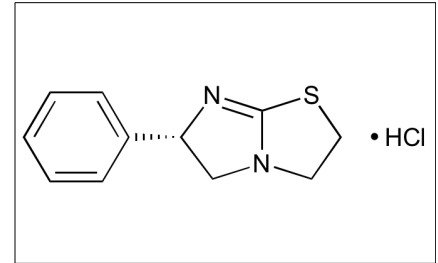
**Formula** C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>S • HCl

**Formula Wt.** 240.76

**Melting Point** 228-230° C

**Purity** ≥98%

**Solubility** Soluble in water.



**Bulk quantities available upon request**

Product ID	Size
L1682	5 g
L1682	10 g

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Levamisole is an imidazothiazole that exhibits immunomodulatory, anti-parasitic, anti-helminthic, anti-angiogenic, and anticancer chemotherapeutic activities. Levamisole inhibits alkaline phosphatase and may act as an agonist at nicotinic acetylcholine receptors (nAChRs). In multiple myeloma cells, levamisole induces DNA fragmentation, cytochrome c release and caspase 3 activation, inhibiting cellular proliferation. In other models, levamisole also inhibits proliferation and differentiation of endothelial cells and suppresses growth of various tumors in vivo.

**References** Ramanadham M, Nageshwari B. Anti-proliferative effect of levamisole on human myeloma cell lines in vitro. J Immunotoxicol. 2010 Oct-Dec;7(4):327-32. PMID: 20860474.

Friis T, Engel AM, Klein BM, et al. Levamisole inhibits angiogenesis in vitro and tumor growth in vivo. Angiogenesis. 2005;8(1):25-34. PMID: 16132615.

Zinser EW, Wolf ML, Alexander-Bowman SJ, et al. Anthelmintic paraherquamides are cholinergic antagonists in gastrointestinal nematodes and mammals. J Vet Pharmacol Ther. 2002 Aug;25(4):241-50. PMID: 12213111.

Van Belle H. Alkaline phosphatase. I. Kinetics and inhibition by levamisole of purified isoenzymes from humans. Clin Chem. 1976 Jul;22(7):972-6. PMID: 6169.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.