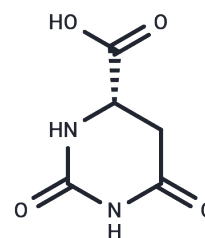


## L-Dihydroorotic acid

## Chemical Properties

CAS No. :	5988-19-2
Formula:	C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> O <sub>4</sub>
Molecular Weight:	158.11
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	L-Dihydroorotic acid, also known as (S)-4,5-dihydroorotate or dihydro-L-rotate, belongs to the class of organic compounds known as alpha amino acids and derivatives. Within the cell, L-dihydroorotic acid is primarily located in the cytoplasm and mitochondria. L-Dihydroorotic acid exists in all eukaryotes, ranging from yeast to humans. L-Dihydroorotic acid participates in a number of enzymatic reactions. In particular, L-Dihydroorotic acid can be biosynthesized from ureidosuccinic acid; which is catalyzed by the enzyme cad protein. In addition, L-Dihydroorotic acid and quinone can be converted into orotic acid; which is mediated by the enzyme dihydroorotate dehydrogenase (quinone), mitochondrial. In humans, L-dihydroorotic acid is involved in the pyrimidine metabolism pathway. L-Dihydroorotic acid is also involved in several metabolic disorders, some of which include UMP synthase deficiency (orotic aciduria), the mngie (mitochondrial neurogastrointestinal encephalopathy) pathway, Beta ureidopropionase deficiency, and dihydropyrimidinase deficiency.
Targets(IC50)	Endogenous Metabolite,Dehydrogenase

## Solubility Information

Solubility	DMSO: 250 mg/mL (1581.18 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (12.65 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	6.3247 mL	31.6236 mL	63.2471 mL
5 mM	1.2649 mL	6.3247 mL	12.6494 mL
10 mM	0.6325 mL	3.1624 mL	6.3247 mL
50 mM	0.1265 mL	0.6325 mL	1.2649 mL

---

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

#### Reference

Jiang, G., et al.: J. Med. Chem., 44, 453 (2001)

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481