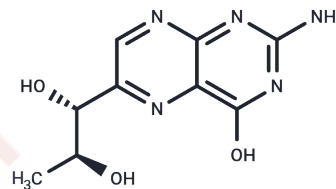


## 6-Biopterin

## Chemical Properties

CAS No. :	22150-76-1
Formula:	C <sub>9</sub> H <sub>11</sub> N <sub>5</sub> O <sub>3</sub>
Molecular Weight:	237.22
Storage:	Store at low temperature, Store under nitrogen Powder: -20°C for 3 years <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	6-Biopterin (L-Biopterin) is a natural product, is a NO synthase cofactor.
Targets(IC50)	Endogenous Metabolite, NO Synthase, NOD
In vitro	The oxidized cofactor 6-biopterin (0.2 x 10 <sup>-6</sup> M) is extremely cytotoxic to human melanocytes under in vitro conditions. Consequently, its reduction to 6-BH <sub>4</sub> via q-BH <sub>2</sub> is essential to melanocyte viability. Human thioredoxin reductase has the capacity to reduce 6-biopterin to q-BH <sub>2</sub> where further reduction to 6-BH <sub>4</sub> follows via dihydropteridine reductase or reduced glutathione[1].

## Solubility Information

Solubility	DMSO: 6 mg/mL (25.29 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2155 mL	21.0775 mL	42.155 mL
5 mM	0.8431 mL	4.2155 mL	8.431 mL
10 mM	0.4215 mL	2.1077 mL	4.2155 mL
50 mM	0.0843 mL	0.4215 mL	0.8431 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

Schallreuter K U , Buttner G , Pittelkow M R , et al. Cytotoxicity of 6-Biopterin to Human Melanocytes[J]. Biochemical & Biophysical Research Communications, 1994, 204(1):0-48.

Longo N . Disorders of biopterin metabolism[J]. Journal of Inherited Metabolic Disease, 2009, 32(3):457-457.

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