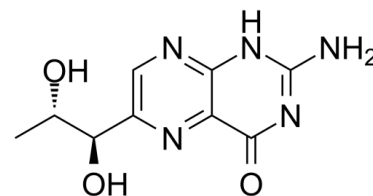


Data Sheet

Product Name:	6-Biopterin
Cat. No.:	CS-6962
CAS No.:	22150-76-1
Molecular Formula:	C ₉ H ₁₁ N ₅ O ₃
Molecular Weight:	237.22
Target:	Endogenous Metabolite; NO Synthase
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease
Solubility:	DMSO : 12.5 mg/mL (52.69 mM; ultrasonic and warming and heat to 75°C)



BIOLOGICAL ACTIVITY:

6-Biopterin (L-Biopterin), a pterin derivative, is a **NO synthase** cofactor. **In Vitro:** 6-biopterin is extremely cytotoxic to human melanocytes under in vitro conditions. Thioredoxin reductase has the capacity to reduce 6-biopterin to q-BH2 where further reduction to 6-BH4 follows via dihydropteridine reductase or reduced glutathione. (6R)5,6,7,8 tetrahydrobiopterin undergoes redox-cycling by its oxidation to quinonoid dihydrobiopterin and to 6-biopterin through consecutive two electron oxidation reactions^[1].

References:

[1]. Schallreuter KU, et al. Cytotoxicity of 6-biopterin to human melanocytes. *Biochem Biophys Res Commun.* 1994 Oct 14;204(1):43-8.

CAIndexNames:

4(1H)-Pteridinone, 2-amino-6-[(1R,2S)-1,2-dihydroxypropyl]-

SMILES:

O=C1N=C(N)NC2=NC=C([C@@H](O)[C@@H](O)C)N=C12

Caution: Product has not been fully validated for medical applications. For research use only.

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