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DATASHEET

2,4-Diamino-6-hydroxypyrimidine

Product overview

Name	2,4-Diamino-6-hydroxypyrimidine
Cat No	HB0070
Biological action	Inhibitor
Purity	>98%
Description	GTP cyclohydrolase I (GCH1) inhibitor

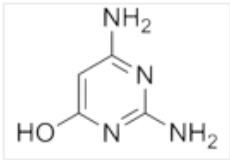
Biological Data

Biological description	GTP cyclohydrolase I (GCH1) inhibitor. Decreases tetrahydrobiopterin (BH4) synthesis and suppresses NOS activity. Also causes a decrease in vascular cell adhesion molecule 1 (VCAM-1) cells in response to TNF- α and IFN- γ .
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Solubility & Handling

Solubility overview	Soluble in DMSO (100 mM), and in water (50 mM)
Storage instructions	+4 °C
Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
Shipping Conditions	Stable for ambient temperature shipping. Follow storage instructions on receipt.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	DAHP
Molecular Weight	126.12
Chemical structure	
Molecular Formula	C ₄ H ₆ N ₄ O
CAS Number	56-06-4
PubChem identifier	2944
SMILES	C1(=CC(N=C(N1[H])N([H])([H])=O)N([H])([H])
InChi	InChI=1S/C4H6N4O/c5-2-1-3(9)8-4(6)7-2/h1H,(H5,5,6,7,8,9)
InChiKey	SWELIMKTDYHAOY-UHFFFAOYSA-N
MDL number	MFCD00006098

References

GTP cyclohydrolase I inhibition by the prototypic inhibitor 2, 4-diamino-6-hydroxypyrimidine. Mechanisms and unanticipated

role of GTP cyclohydrolase I feedback regulatory protein.

Xie L *et al* (1998) J Biol Chem 273(33)

PubMedID [9694862](#)

2,4-Diamino-6-hydroxypyrimidine (DAHP) suppresses cytokine-induced VCAM-1 expression on the cell surface of human umbilical vein endothelial cells in a BH(4)-independent manner.

Ikemoto K *et al* (2008) Biochim Biophys Acta 1780(7-8)

PubMedID [18423409](#)

The mechanism of potent GTP cyclohydrolase I inhibition by 2,4-diamino-6-hydroxypyrimidine: requirement of the GTP cyclohydrolase I feedback regulatory protein.

Kolinsky MA *et al* (2004) J Biol Chem 279(39)

PubMedID [15292175](#)
