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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.

Solubility & Handling

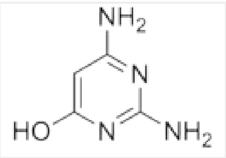
Storage instructions	+4°C
Solubility overview	Soluble in DMSO (100 mM), and in water (50 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name DAHP

Molecular Weight 126.12

Chemical structure



Molecular Formula	$C_4H_6N_4O$
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