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DATASHEET

6-Thioguanine

Product overview

Name	6-Thioguanine
Cat No	HB1379
Alternative names	6-TG; Thioguanine
Biological action	Substrate
Purity	>99%
Description	Competitive hypoxanthine-guanine phosphoribosyltransferase substrate

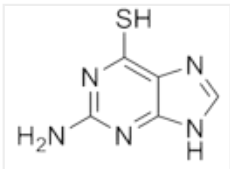
Biological Data

Biological description	Competitive hypoxanthine-guanine phosphoribosyltransferase substrate. An antimetabolite guanine analogue that inhibits DNA methylation. Shows anti-cancer and anti-angiogenic actions.
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Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (100mM)
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	2-Amino-6-mercaptapurine
Molecular Weight	167.19
Chemical structure	
Molecular Formula	C ₅ H ₅ N ₅ S
CAS Number	154-42-7
PubChem identifier	2723601
SMILES	NC1=NC(S)=C2C(NC=N2)=N1
InChiKey	WYWHKKSPHMUBEB-UHFFFAOYSA-N

References

Thioguanine, mercaptopurine: their analogs and nucleosides as antimetabolites.

Elgemeie GH (2003) Curr Pharm Des 9(31)

PubMedID [14529546](#)

6-Thioguanine perturbs cytosine methylation at the CpG dinucleotide site by DNA methyltransferases in vitro and acts as a DNA demethylating agent in vivo.

Wang H *et al* (2009) *Biochemistry* 48(10)

PubMedID [19236003](#)

Anti-angiogenic activity of the purine analog 6-thioguanine.

Presta M *et al* (2002) *Leukemia* 16(8)

PubMedID [12145690](#)
