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DATASHEET

BIO

Product overview

Name	BIO
Cat No	HB1259
Alternative names	6-BIO; 6BIO
Biological action	Inhibitor
Purity	>98%
Description	Potent GSK-3α/β inhibitor. Maintains ESC self-renewal and pluripotency.

Images

Biological Data

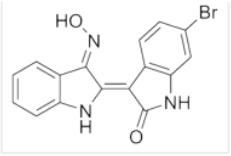
Biological description	Potent GSK-3α/β inhibitor (IC_{50} = 5 nM). Exhibits reduced activity at CDK1/cyclin B, CDK2/cyclinA, CDK4/cyclin D1, CDK5/p35, MAPKK andPKC-subunit α (IC_{50} values are 0.32, 0.30, 10, 0.08, 10 and 12 μM respectively). Induces β-catenin stabilisation and protects hippocampal neurons from Aβ oligomer damage. Also inhibits Tyr276/216 phosphorylation and reduces β-catenin phosphorylation. Cell permeable. Maintains embryonic stem cell self-renewal and pluripotency and displays proliferation enhancing properties.

Solubility & Handling

Storage instructions	+4°C
Solubility overview	Soluble in DMSO (10mM) or ethanol (10mM)
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'*Z*,3'*E*)-6-Bromoindirubin-3'-oxime
Molecular Weight	356.17
Chemical structure	



Molecular Formula	$C_{16}H_{10}BrN_3O_2$
CAS Number	667463-62-9
PubChem identifier	448949
SMILES	O/N=C(C1=CC=CC=C1N2)/C2=C3/C(NC4=C3C=CC(Br)=C4)=O
InChi	InChI=1S/C16H10BrN3O2/c17-8-5-6-9-12(7-8)19-16(21)13(9)15-14(20-22)10-3-1-2-4-11(10)18-15/h1-7,18-19,21H
InChiKey	WNWSUJQVZJJGLF-SQFISAMPSA-N
MDL number	MFCD08705318
Appearance	Red solid

References

Canonical Wnt signaling protects hippocampal neurons from Aβ oligomers: role of non-canonical Wnt-5a/Ca(2+) in mitochondrial dynamics.

Silva-Alvarez C *et al* (2013) Front Cell Neurosci 7
PubMedID 23805073

GSK-3-selective inhibitors derived from Tyrian purple indirubins.

Meijer L *et al* (2003) Chem Biol 10(12)
PubMedID 14700633

The GSK-3 inhibitor BIO promotes proliferation in mammalian cardiomyocytes.

Tseng AS *et al* (2006) Chem Biol 13(9)
PubMedID 16984885