

## Specification Sheet

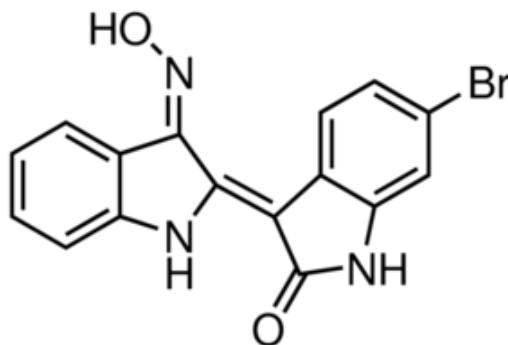
B1686 Sigma-Aldrich

## BIO

≥98% (HPLC)

Synonym: (2'Z,3'E)-6-Bromoindirubin-3'-oxime, 6-BIO, 6BIO

- CAS Number [667463-62-9](#)
- Empirical Formula (Hill Notation) C<sub>16</sub>H<sub>10</sub>BrN<sub>3</sub>O<sub>2</sub>
- Molecular Weight 356.17
- MDL number [MFCD08705318](#)
- PubChem Substance ID [24724412](#)
- NACRES NA.77



SKU-Pack Size	Availability	Pack Size	Price (SGD)	Quantity
B1686-5MG	Available to ship on 14.04.2021 - FROM	5 mg	143.72	<input type="text" value="0"/>
B1686-25MG	Estimated to ship on 05.05.2021 - FROM	25 mg	568.53	<input type="text" value="0"/>

## Properties

Related Categories [B](#), [Bioactive Small Molecule Alphabetical Index](#), [Bioactive Small Molecules](#), [Cell Biology](#), [Cell Signaling and Neuroscience](#),

Quality Level [100](#)

assay ≥98% (HPLC)

form powder



storage condition	protect from light
color	dark red
solubility	DMSO: >5 mg/mL
shipped in	wet ice
storage temp.	2-8°C
SMILES string	<chem>O=N=C1C(Nc2ccccc12)=C3C(=O)Nc4cc(Br)ccc34</chem>
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/h1-7,18,22H,(H,19,21)/b15-13-,20-14+
InChI key	DDLZLOKJCJHBUHD-WAVHTBQISA-N
<a href="#">Show Fewer Properties</a>	

## Description

### Application

6-bromoindirubin-3'-oxime (BIO) has been used:

- in MTT 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide) cell proliferation assay<sup>[1]</sup>
- as a medium supplement in embryonic stem cells (ESCs)<sup>[2]</sup>
- for the inhibition of glycogen synthase kinase 3  $\beta$  (GSK-3 $\beta$ ) in human dermal papilla cells (hDPCs)<sup>[3]</sup>

### Packaging

5, 25 mg in glass bottle

### Biochem/physiol Actions

6-bromoindirubin-3'-oxime (BIO) is a potent, reversible and ATP-competitive GSK-3 $\alpha/\beta$  inhibitor and the first pharmacological agent shown to maintain self-renewal in human and mouse embryonic stem cells. Human embryonic stem cells (hESCs) are maintained in the undifferentiated state through treatment with a GSK-3 inhibitor, BIO, under a feeder-free condition.

### Features and Benefits

This compound is a featured product for Kinase Phosphatase Biology research. [Click here](#) to discover more featured Kinase Phosphatase Biology products. Learn more about bioactive small molecules for other areas of research at [sigma.com/discover-bsm](https://sigma.com/discover-bsm).



This compound is also offered as part of Sigma's Library of Pharmacologically Active Compounds (LOPAC®<sup>1280</sup>), a biologically annotated collection of high-quality, ready-to-screen compounds. [Click here](#) to learn more.

This compound is featured on the [GSK-3](#) page of the Handbook of Receptor Classification and Signal Transduction. To browse other handbook pages, [click here](#).

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#### *Packaging*

air sensitive

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#### *Legal Information*

Product is sold for research and laboratory purposes *in vitro* and may not be used for any *in vivo* or therapeutic uses in humans, veterinary applications, or to make chemical derivatives.

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