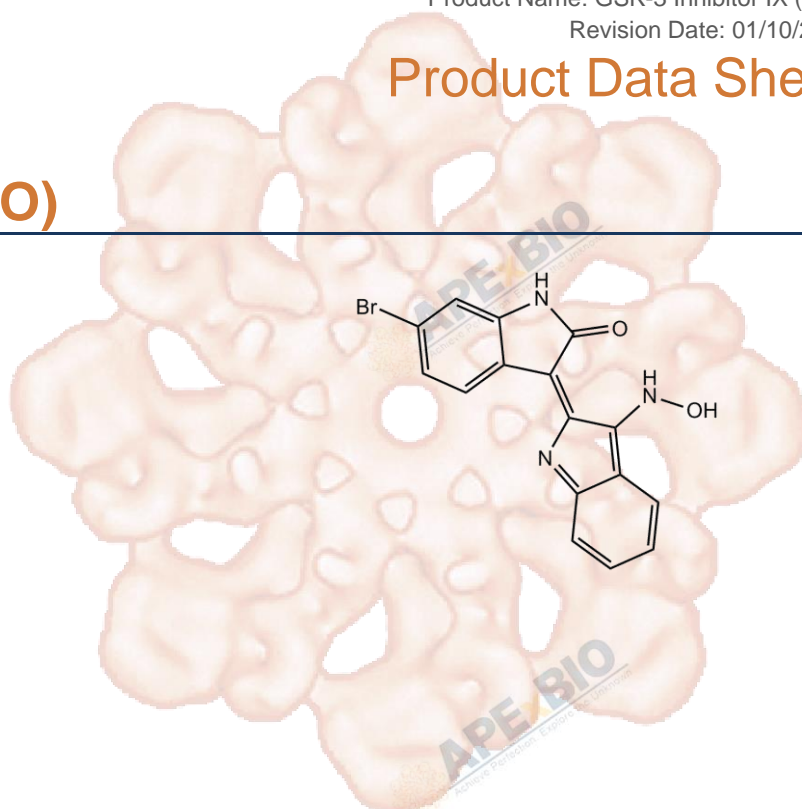


Product Data Sheet

GSK-3 Inhibitor IX (BIO)

Cat. No.:	B1538
CAS No.:	667463-62-9
Formula:	C ₁₆ H ₁₀ BrN ₃ O ₂
M.Wt:	356.17
Synonyms:	GSK-3 Inhibitor IX
Target:	PI3K/Akt/mTOR Signaling
Pathway:	GSK-3
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥ 14.4 mg/mL in EtOH with gentle warming; ≥ 35.6 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	2.8076 mL	14.0382 mL	28.0765 mL
	5 mM	0.5615 mL	2.8076 mL	5.6153 mL
	10 mM	0.2808 mL	1.4038 mL	2.8076 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

GSK-3 α /GSK-3 β inhibitor, cell-permeable, ATP-competitive and reversible

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Cos-1 cells, SH-SY5Y cells, adult rat mammalian cardiomyocytes
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	5, 10 μ M for 24 hr; or 1 μ M for 12 hr; 5 μ M for 48 hr

	Applications:	The selective GSK-3 inhibitor BIO inhibited β -catenin phosphorylation on GSK-3-specific sites in Cos-1 cells. Moreover, BIO dramatically decreased level of tyrosine phosphorylation of both GSK-3 isoforms [1]. BIO also increased the proliferation potential of mammalian cardiomyocytes [2].
In Vivo	Animal experiment	
	Animal models:	Xenopus laevis embryos model
	Dosage form:	5, 15 and 50 μ M
	Applications:	BIO is an effective and specific inhibitor of GSK-3 activity in vivo and BIO activated the maternal Wnt signaling pathway in Xenopus laevis embryos [1].
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

1. Meijer, L., Skaltsounis, A. L., Magiatis, P., Polychronopoulos, P., Knockaert, M., Leost, M., Ryan, X. P., Vonica, C. A., Brivanlou, A., Dajani, R., Crovace, C., Tarricone, C., Musacchio, A., Roe, S. M., Pearl, L. and Greengard, P. (2003) GSK-3-selective inhibitors derived from Tyrian purple indirubins. Chem Biol. 10, 1255-12662.
2. Tseng, A. S., Engel, F. B. and Keating, M. T. (2006) The GSK-3 inhibitor BIO promotes proliferation in mammalian cardiomyocytes. Chem Biol. 13, 957-963

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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