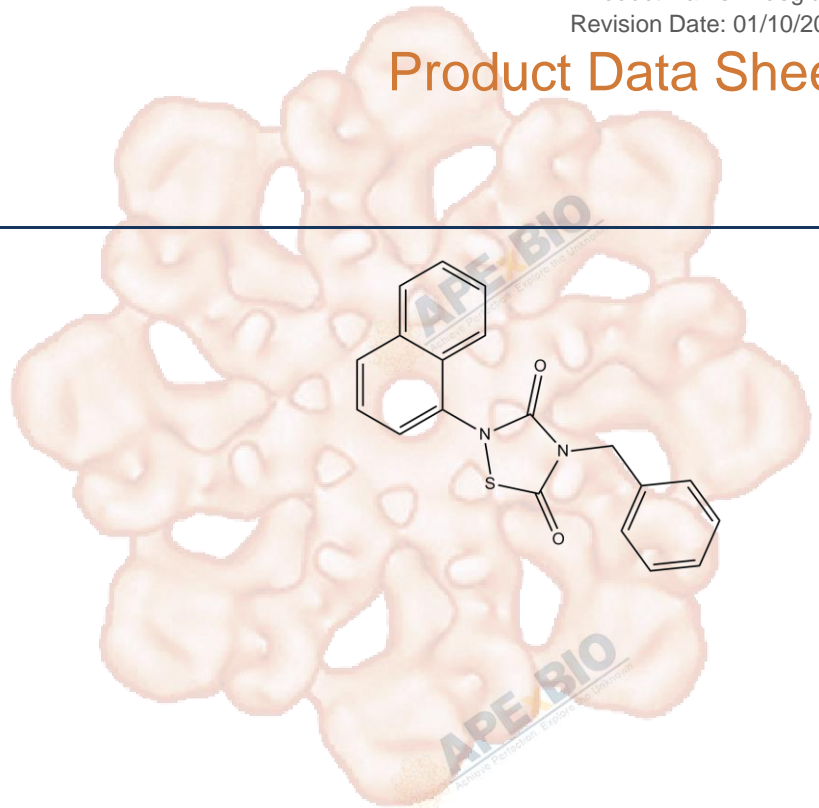


# Product Data Sheet

## Tideglusib

<b>Cat. No.:</b>	B1539
<b>CAS No.:</b>	865854-05-3
<b>Formula:</b>	C <sub>19</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub> S
<b>M.Wt:</b>	334.39
<b>Synonyms:</b>	
<b>Target:</b>	PI3K/Akt/mTOR Signaling
<b>Pathway:</b>	GSK-3
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

insoluble in EtOH; insoluble in H<sub>2</sub>O; ≥16.7 mg/mL in DMSO with gentle warming

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.9905 mL	14.9526 mL	29.9052 mL
	<b>5 mM</b>	0.5981 mL	2.9905 mL	5.9810 mL
	<b>10 mM</b>	0.2991 mL	1.4953 mL	2.9905 mL

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

## Biological Activity

Shortsummary

non-ATP-competitive GSK-3β inhibitor

IC<sub>50</sub> & Target

### Cell Viability Assay

In Vitro

Cell Line:	Spodoptera frugiperda Sf21 cells(expressing N-terminal His6-tagged human recombinant GSK-3β)
Preparation method:	The solubility of this compound in DMSO >15 mg/mL. 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:	55µM for 1h at 25 °C .
	Applications:	Tideglusib blocked GSK-3β irreversibly in Sf21 cells transfected with human recombinant GSK-3β. It could prevent inflammation and neurodegeneration under excitotoxic conditions.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Transgenic APPsw-tauvlw C57Bl6j/SJL/CBA mixed hybrid genetic mice( overexpressing human mutant APP and a triple human tau mutation (G272V, P301L and R406W at chromosome 17))
	Dosage form:	Reconstituted in 26% peg400 (Polyethylene Glycol 400), 15% Chremophor EL and water; 200 mg/kg daily for consecutive months; oral gavage
	Applications:	Treatment with tideglusib resulted in lower levels of tau phosphorylation, decreased amyloid deposition and plaque-associated astrocytic proliferation, protection of neurons in the entorhinal cortex and CA1 hippocampal subfield against cell death, and prevention of memory deficits in this transgenic mouse model
	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](http://www.apexbt.com).

## References

- [1] Domínguez JM, Fuertes A, et al, Evidence for irreversible inhibition of glycogen synthase kinase-3 by Tideglusib. J Biol Chem. 2012 Jan; 287(2): 893-904.
- [2] Luna-Medina R1, Cortes-Canteli M, et al, NP031112, a thiadiazolidinone compound, prevents inflammation and neurodegeneration under excitotoxic conditions: potential therapeutic role in brain disorders. J Neurosci. 2007 May 23;27(21):5766-76.
- [3] Serenóa L, Coma M, et al, A novel GSK-3β inhibitor reduces Alzheimer's pathology and rescues neuronal loss in vivo. Neurobiol Dis. 2009 Sep; 35(3): 359-67.

## 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.



## **APExBIO Technology**

**[www.apexbt.com](http://www.apexbt.com)**

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)

