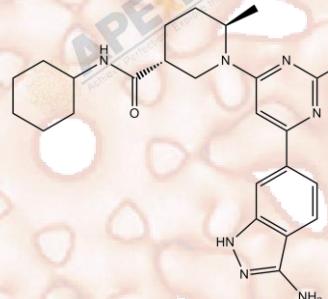


Product Data Sheet

GSK2334470

Cat. No.: B2174
CAS No.: 1227911-45-6
Formula: C₂₅H₃₄N₈O
M.Wt: 462.59
Synonyms:
Target: PI3K/Akt/mTOR Signaling
Pathway: PDK-1
Storage: Store at -20°C



Solvent & Solubility

≥46.3 mg/mL in DMSO; insoluble in H₂O; ≥9.6 mg/mL in EtOH

In Vitro	Preparing Stock Solutions	Mass		1mg	5mg	10mg			
		Solvent							
		Concentration							
		1 mM		2.1617 mL	10.8087 mL	21.6174 mL			
		5 mM		0.4323 mL	2.1617 mL	4.3235 mL			
		10 mM		0.2162 mL	1.0809 mL	2.1617 mL			

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

Biological Activity

Shortsummary	PDK1 inhibitor, highly specific and potent
IC ₅₀ & Target	~10 nM (PDK1)
In Vitro	Cell Viability Assay
	Cell Line: U87 cells and fibroblasts
	Preparation method: The solubility of this compound in DMSO is >23.2mg/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: 3 μM, 1 μM

	Applications:	In U87 glioblastoma cells that lack PTEN expression, GSK2334470 (3μM) only partially inhibited Thr308 phosphorylation or Akt activation ~3-fold. GSK2334470 (1 μM) effectively inhibited SGK1 activity. In MEF (mouse embryonic fibroblast) cells, 1 μM GSK2334470 inhibited Akt Thr308 phosphorylation and activity, and also inhibited activation of S6K1 as well as SGK1.
Animal experiment		
	Animal models:	MM xenograft model established in immunodeficient mice
	Dosage form:	5 days of GSK-470 (40 mg/kg/d), 5 days of PP242 (20 mg/kg/d), or 5 days of GSK-470 combined with PP242; intraperitoneal injection; once every day
In Vivo	Applications:	In multiple myeloma xenograft immunodeficient mice, compared with untreated mice, GSK-470 (GSK2334470) or PP242 produced a modest tumor volume reduction. Combination treatment with GSK-470 and PP242 significantly inhibited tumor growth.
	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]. Najafov A, Sommer E, Axtell J, et al. Characterization of GSK2334470, a novel and highly specific inhibitor of PDK1. Biochem. J. 2011, 433: 357-369.
- [2]. Yang C, Huang X, Liu H, et al. PDK1 inhibitor GSK2334470 exerts antitumor activity in multiple myeloma and forms a novel multitargeted combination with dual mTORC1/C2 inhibitor PP242. Oncotarget. 2017 Jun 13;8(24):39185-39197.

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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