BX-320

Cat. No.:	HY-10515	
CAS No.:	702676-93-5	
Molecular Formula:	C ₂₃ H ₃₁ BrN ₈ O ₃	
Molecular Weight:	547.45	O O Br N O O
Target:	PDK-1	
Pathway:	PI3K/Akt/mTOR	
Storage:	-20°C, sealed storage, away from moisture	
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)	

Product Data Sheet

BIOLOGICAL ACTIV		
Description	BX-320 is a selective, ATP-c	competitive, orally acitive, and direct PDK1 inhibitor with an IC ₅₀ of 30 nM in a direct kinase assay as apoptosis. Anticancer effect ^[1] .
In Vitro	IC ₅₀ s of 0.82, 0.89, 1.4, 1.4, BX-320 blocks PDK1/Akt sig in culture or induces apopt BX-320 inhibits the growth induction of caspase-3/7 ac BX-320 (0.3-10 μM; for 18 ho	nding site of PDK1. BX-320 also inhibits Chck1, c-Kit, KDR, PKA, CDK2b/cyclin E, GSK3 β , PKC with 1.5, 4.0, and 5.7 μ M, respectively ^[1] . gnaling in tumor cells and inhibits the anchorage-dependent growth of a variety of tumor cell lines tosis ^[1] . of MDA-468 breast cancer cells (IC ₅₀ =0.6 μ M) and induces apoptosis. BX-320 promotes a 12-fold ctivity after 48 h of treatment (IC ₅₀ =0.5 μ m), indicating a strong proapoptotic response ^[1] . ours) greatly reduces the amount of both p-Thr308-Akt and p-Thr386-S6K1 ^[1] . y confirmed the accuracy of these methods. They are for reference only.
	Cell Line:	MDA-468 breast cancer cells
	Concentration:	31.6 nM, 100 nM, 316.22 nM, 1 μM, 3.162 μM, 10 μM, and 31.6 μM
	Incubation Time:	72 hours
	Result:	Blocked the growth of MDA-468 cells (IC $_{50}$ = 0.6 μ M), which are PTEN-negative breast tumor cells expressing high levels of activated Akt.
	Western Blot Analysis ^[1]	
	Cell Line:	PC-3 cells
	Concentration:	0, 0.3, 1, 3, 10 μΜ
	Incubation Time:	18 hours
	Result:	Reduced the amount of both phospho-Thr ³⁰⁸ -Akt and phospho-Thr ³⁸⁶ -S6K1.
In Vivo	inhibits the growth of LOX I	00 mg/kg, twice a day for 21 days) shows efficacy in a blood-borne metastasis model. BX-320 melanoma tumors in the lungs of nude mice after injection of tumor cells into the tail vein. BX-320 mor model, which may reflect an inhibition of productive implantation of tumor cells in the lung



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	equent tumor growth ^[1] . ently confirmed the accuracy of these methods. They are for reference only.
Animal Model:	Athymic (nu/nu) female mice, 6-8 weeks old ^[1]
Dosage:	200 mg/kg; dose volume was 10 mL/kg
Administration:	Oral gavage twice daily (12 h apart)
Result:	Significantly inhibited the growth of lung tumors in this model.

REFERENCES

[1]. Richard I Feldman, et al. Novel small molecule inhibitors of 3-phosphoinositide-dependent kinase-1. J Biol Chem. 2005 May 20;280(20):19867-74.

Caution: Product has not been fully validated for medical applications. For research use only.

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