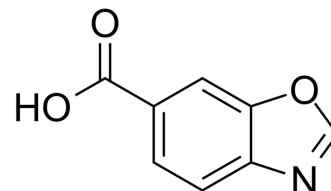


Serpin B9-IN-1

Cat. No.:	HY-33299
CAS No.:	154235-77-5
Molecular Formula:	C ₈ H ₅ NO ₃
Molecular Weight:	163.13
Target:	Others
Pathway:	Others
Storage:	<div>Powder</div> <div>-20°C 3 years</div> <div>4°C 2 years</div> <div>In solvent</div> <div>-80°C 6 months</div> <div>-20°C 1 month</div>



BIOLOGICAL ACTIVITY

Description	Serpin B9-IN-1 (BTCA) is an inhibitor that specifically targets Serpin B9 (SB9); SB9 is a natural inhibitor of granzyme B (GrB) , but may promote the metastasis of lung cancer cells into the bone marrow. SB9-overexpressing cancer cells promote proliferation and metastasis in an immune cell-dependent manner by binding to GrB. Inhibition of SB9 by Serpin B9-IN-1 significantly inhibits immunotherapy of lung cancer bone metastases in the caudal artery (CA) mouse model (LCBM) ^[1] .	
IC ₅₀ & Target	IC50: Serpin B9	
In Vivo	Serpin B9-IN-1 (BTCA) inhibits bone metastasis (BM) in multiple tumor metastasis models. Serpin B9-IN-1 (50 mg/kg/d; ip; 14 d) effectively reduced the survival rate and metastasis proportion of metastatic cancer cells in the mouse bone metastasis model with LLC1-BM3 injected into the tail artery (CA) ^[1] .	
	Serpin B9-IN-1 (300 µg/d; ip; 14 d) effectively delayed the average time to bone metastasis (BM) in the LLC1-BM3 cell group ^[1] .	
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	LLC1-BM3 Bone Metastatic Mouse Model by CA injections ^[1]
	Dosage:	50 mg/kg
	Administration:	ip; followed after cancer cell injection, injection daily for 14 days
	Result:	Reduced the survival rate and metastasis proportion of metastatic cancer cells
	Animal Model:	LLC1-BM3-sr-ctrl Model in Mouse ^[1]
	Dosage:	300 µg
	Administration:	ip; once daily for 14 days
Result:	Delayed the mean time to occurrence of bone metastasis (BM), and lowered the burden of BM in LLC1-BM3-shSB9 cells group.	

REFERENCES

[1]. Huang Y, et al. Mass Spectrometry-Based Proteomics Identifies Serpin B9 as a Key Protein in Promoting Bone Metastases in Lung Cancer. Mol Cancer Res. 2024 Apr 2;22(4):402-414.

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

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