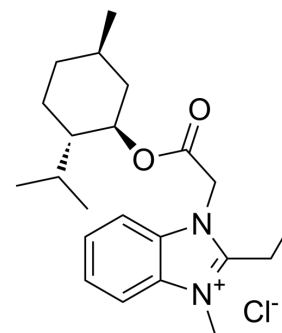


Gboxin

Cat. No.:	HY-111651
CAS No.:	2101315-36-8
Molecular Formula:	C ₂₂ H ₃₃ ClN ₂ O ₂
Molecular Weight:	392.96
Target:	ATP Synthase; Mitochondrial Metabolism; Oxidative Phosphorylation
Pathway:	Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 32.5 mg/mL (82.71 mM; Need ultrasonic)					
	H ₂ O : 10 mg/mL (25.45 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.5448 mL	12.7239 mL	25.4479 mL
5 mM			0.5090 mL	2.5448 mL	5.0896 mL	
10 mM		0.2545 mL	1.2724 mL	2.5448 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.17 mg/mL (5.52 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.17 mg/mL (5.52 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.17 mg/mL (5.52 mM); Clear solution					
	4. Add each solvent one by one: PBS Solubility: 2 mg/mL (5.09 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Gboxin is an oxidative phosphorylation (OXPHOS) inhibitor that targets glioblastoma. Gboxin inhibits the activity of F ₀ F ₁ ATP synthase. Antitumour activity ^[1] .
IC₅₀ & Target	F ₀ F ₁ ATP synthase ^[1]
In Vitro	Gboxin (0-15 μM; 96 hours) specifically inhibit the growth of primary 'high-throughput GBM sphere' (HTS) cells but not that

of cycling primary low-passage mouse embryonic fibroblasts (MEFs) or astrocytes^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[1]

Cell Line:	HTS cells, MEFs and astrocytes
Concentration:	0, 185, 555, 1667, 5000, 15000 nM
Incubation Time:	96 hours
Result:	Inhibited the growth of HTS cells (IC ₅₀ =150 nM).

CUSTOMER VALIDATION

- Nat Commun. 2023 Jul 28;14(1):4557.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Shi Y, et al. Gboxin is an oxidative phosphorylation inhibitor that targets glioblastoma. Nature. 2019 Mar;567(7748):341-346.

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

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