



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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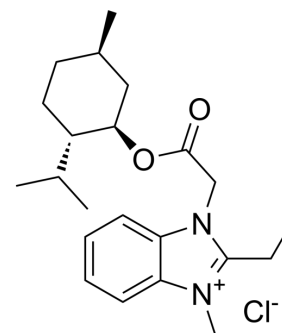
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## Gboxin

<b>Cat. No.:</b>	HY-111651
<b>CAS No.:</b>	2101315-36-8
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>33</sub> ClN <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	392.96
<b>Target:</b>	ATP Synthase; Mitochondrial Metabolism; Oxidative Phosphorylation
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease
<b>Storage:</b>	-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<sub>2</sub>O : 10 mg/mL (25.45 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	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

- 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
- 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
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.17 mg/mL (5.52 mM); Clear solution
- 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<sub>0</sub>F<sub>1</sub> ATP synthase. Antitumour activity<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

F<sub>0</sub>F<sub>1</sub> ATP synthase<sup>[1]</sup>

#### 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<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### Cell Viability Assay<sup>[1]</sup>

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 <sub>50</sub> =150 nM).

## CUSTOMER VALIDATION

- Nat Commun. 2023 Jul 28;14(1):4557.
- Biochem Pharmacol. 2024 Apr 26:116242.

See more customer validations on [www.MedChemExpress.com](http://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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