



# SZABO SCANDIC

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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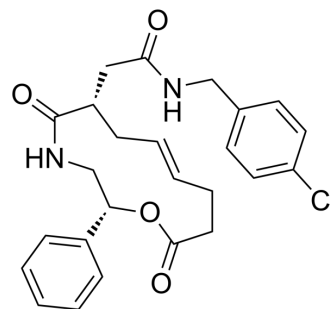
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## Robotnikinin

<b>Cat. No.:</b>	HY-100515
<b>CAS No.:</b>	1132653-79-2
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>27</sub> ClN <sub>2</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	454.95
<b>Target:</b>	Hedgehog
<b>Pathway:</b>	Stem Cell/Wnt
<b>Storage:</b>	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 20 mg/mL (43.96 mM; Need ultrasonic and warming)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.1980 mL	10.9902 mL	21.9804 mL
	5 mM	0.4396 mL	2.1980 mL	4.3961 mL
	10 mM	0.2198 mL	1.0990 mL	2.1980 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Robotnikinin is a small molecule capable of binding to and inhibiting the activity of Sonic Hedgehog (Shh) signaling up stream of Smo<sup>[1][2]</sup>.

#### In Vitro

Robotnikinin demonstrates ShhN-binding capacity at concentrations between 1.56 μM and 25 μM, with a K<sub>D</sub> of 3.1 μM derived from kinetic data<sup>[2]</sup>.  
 Robotnikinin (50 μM) prevents the ShhN-induced LC3-II increase<sup>[3]</sup>.  
 Robotnikinin (5 μM) downregulates classical NF-κB pathway proteins in H929 and U266 cell lines cocultured with HS-5 cells, suggesting a link between Hh signaling and the NF-κB pathway in MM<sup>[4]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.  
 RT-PCR<sup>[4]</sup>

Cell Line:	NCI-H929 or U266 cells.
Concentration:	5 μM.
Incubation Time:	48 h.

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Result:

Downregulated classical NF- $\kappa$ B pathway proteins in H929 and U266 cell lines cocultured with HS-5 cells.

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## CUSTOMER VALIDATION

- Neural Regen Res. 2023 Jan 30.
- Neurochem Int. 2024 Jan 4:105674.
- Research Square Print. 2022 May.

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

## REFERENCES

- [1]. Manuel Hitzengerger, et al. The Binding Mode of the Sonic Hedgehog Inhibitor Robotnikinin, a Combined Docking and QM/MM MD Study. Front Chem
  - [2]. Benjamin Z Stanton, et al. A small molecule that binds Hedgehog and blocks its signaling in human cells. Nat Chem Biol. 2009 Mar;5(3):154-6.
  - [3]. Ronald S Petralia, et al. Sonic hedgehog promotes autophagy in hippocampal neurons. Biol Open. 2013 Apr 8;2(5):499-504.
  - [4]. Ke Cai, et al. Targeting the cross-talk between the hedgehog and NF- $\kappa$ B signaling pathways in multiple myeloma. Leuk Lymphoma. 2019 Mar;60(3):772-781.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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