



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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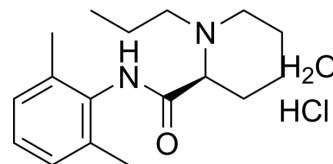
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## Ropivacaine hydrochloride monohydrate (Standard)

<b>Cat. No.:</b>	HY-B0563AR
<b>CAS No.:</b>	132112-35-7
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>29</sub> ClN <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	328.88
<b>Target:</b>	Sodium Channel; Potassium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Ropivacaine (hydrochloride monohydrate) (Standard) is the analytical standard of Ropivacaine (hydrochloride monohydrate). This product is intended for research and analytical applications. Ropivacaine hydrochloride monohydrate is a potent sodium channel blocker and blocks impulse conduction via reversible inhibition of sodium ion influx in nerve fibres <sup>[1][2]</sup> . Ropivacaine is also an inhibitor of K <sub>2P</sub> (two-pore domain potassium channel) TREK-1 with an IC <sub>50</sub> of 402.7 μM in COS-7 cell's membrane <sup>[3]</sup> . Ropivacaine is widely used for regional anesthesia and neuropathic pain management in vivo <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : sodium ion influx <sup>[1]</sup> IC <sub>50</sub> : 402.7 μM (TREK-1 in COS-7 cell's membrane) <sup>[3]</sup>

### REFERENCES

- [1]. Li TF, et al. Epidural sustained release ropivacaine prolongs anti-allodynia and anti-hyperalgesia in developing and established neuropathic pain. PLoS One. 2015 Jan 24;10(1):e0117321.
- [2]. Milan Patel, et al. Ropivacaine Inhibits Pressure-Induced Lung Endothelial Hyperpermeability in Models of Acute Hypertension. Life Sci. 2019 Apr 1;222:22-28.
- [3]. Dene Simpson, et al. Ropivacaine: a review of its use in regional anaesthesia and acute pain management. Drugs. 2005;65(18):2675-717.
- [4]. Hye Won Shin, et al. The inhibitory effects of bupivacaine, levobupivacaine, and ropivacaine on K<sub>2P</sub> (two-pore domain potassium) channel TREK-1. J Anesth. 2014 Feb;28(1):81-6.

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

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