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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

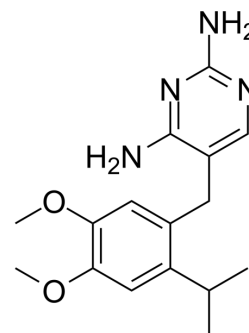
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

RO-3

Cat. No.:	HY-19978
CAS No.:	1026582-88-6
Molecular Formula:	C ₁₆ H ₂₂ N ₄ O ₂
Molecular Weight:	302.37
Target:	P2X Receptor
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (413.40 mM; ultrasonic and warming and heat to 60°C)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		3.3072 mL	16.5360 mL	33.0721 mL
		5 mM		0.6614 mL	3.3072 mL	6.6144 mL
		10 mM		0.3307 mL	1.6536 mL	3.3072 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: ≥ 2.08 mg/mL (6.88 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (6.88 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	RO-3 is a potent, CNS-penetrant, and orally active P2X ₃ and P2X _{2/3} antagonist with pIC ₅₀ s of 5.9 and 7.0 for human homomultimeric P2X ₃ and heteromultimeric P2X _{2/3} receptors, respectively. RO-3 shows selectivity for P2X ₃ and P2X _{2/3} over all other functional homomultimeric P2X receptors (IC ₅₀ > 10 μM at P2X _{1,2,4,5,7}) ^[1] .
IC ₅₀ & Target	pIC ₅₀ : 5.9 (human homomultimeric P2X ₃ receptor); 7.0 (human heteromultimeric P2X _{2/3} receptor) ^[1]
In Vivo	In a guinea pig ureter-afferent nerve preparation, and mouse bladder-pelvic nerve preparation, RO-3 dose-dependently reduces afferent nerve activity induced by distension or α,β-meATP ^[1] . RO-3 has activity in several rodent models of pain, as well as in cystometry models optimized to measure various parameters associated with sensory regulation of the micturition reflex ^[1] .

RO-3 has moderate to high metabolic stability in rat and human hepatocytes and liver microsomes, and is highly permeable, orally bioavailable (14%), and has a reasonable in vivo plasma half-life ($t_{1/2}$ =0.41 h) in rats^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ford AP, et al. Purinoceptors as therapeutic targets for lower urinary tract dysfunction. Br J Pharmacol. 2006;147 Suppl 2(Suppl 2):S132-S143.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA