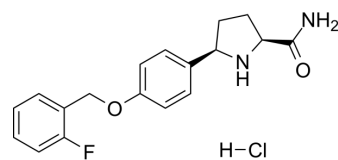


## Raxatrigine hydrochloride

<b>Cat. No.:</b>	HY-12796A
<b>CAS No.:</b>	934240-31-0
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>20</sub> ClFN <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	350.82
<b>Target:</b>	Sodium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel
<b>Storage:</b>	4°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 : ≥ 31 mg/mL (88.36 mM)  
 H<sub>2</sub>O : 14.29 mg/mL (40.73 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.8505 mL	14.2523 mL	28.5046 mL
	5 mM	0.5701 mL	2.8505 mL	5.7009 mL
	10 mM	0.2850 mL	1.4252 mL	2.8505 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: ≥ 2.5 mg/mL (7.13 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (7.13 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (7.13 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Raxatrigine hydrochloride (GSK-1014802 hydrochloride) is a novel small molecule state-dependent sodium channel blocker; Nav1.7 sodium channel inhibitor.

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

Nav1.7

#### In Vitro

Like lamotrigine, both GSK2 and GSK3 were able to prevent the deficit in reversal learning produced by PCP, thus confirming their potential in the treatment of cognitive symptoms of schizophrenia. However, higher doses than those required for

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anticonvulsant efficacy of the drugs were needed for activity in the reversal-learning model, suggesting a lower therapeutic window relative to mechanism-dependent central side effects for this indication. Raxatrigine (GSK-1014802) received orphan-drug designation from the US Food and Drug Administration in July 2013.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Large CH, et al. The efficacy of sodium channel blockers to prevent phencyclidine-induced cognitive dysfunction in the rat: potential for novel treatments for schizophrenia. *J Pharmacol Exp Ther*. 2011 Jul;338(1):100-13.

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

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