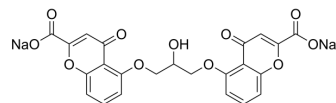


## Cromolyn sodium

<b>Cat. No.:</b>	HY-B0320A
<b>CAS No.:</b>	15826-37-6
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>14</sub> Na <sub>2</sub> O <sub>11</sub>
<b>Molecular Weight:</b>	512.33
<b>Target:</b>	Calcium Channel; GSK-3
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; PI3K/Akt/mTOR; Stem Cell/Wnt
<b>Storage:</b>	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 1 year; -20°C, 6 months (protect from light, stored under nitrogen)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 50 mg/mL (97.59 mM; Need ultrasonic)  
DMSO : 25 mg/mL (48.80 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.9519 mL	9.7593 mL	19.5187 mL
	5 mM	0.3904 mL	1.9519 mL	3.9037 mL
	10 mM	0.1952 mL	0.9759 mL	1.9519 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 50 mg/mL (97.59 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (4.88 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (4.88 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Cromolyn sodium (Disodium Cromoglycate; FPL-670) is an antiallergic agent. Cromolyn sodium is a GSK-3β inhibitor with an IC<sub>50</sub> of 2.0 μM.

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

GSK-3β  
2 μM (IC<sub>50</sub>)

<b>In Vitro</b>	<p>Cromolyn sodium (Disodium Cromoglycate; FPL-670) is a chromone complex that acts by inhibiting the release of chemical mediators from sensitized mast cells. It is used in the prophylactic treatment of both allergic and exercise-induced asthma, but does not affect an established asthmatic attack.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
<b>In Vivo</b>	<p>Pretreatment of IIR mice with Cromolyn sodium (Disodium Cromoglycate; FPL-670) prior to ischemia exhibited no changes of ET-1 levels, injury score and inflammation (<math>P &gt; 0.05</math>, PreCr vs. M groups). In conclusion, administration of Cromolyn (sodium) after reperfusion, but not prior to ischemia, attenuates IIRI by downregulating ET-1 and suppressing sustained MC activation<sup>[1]</sup>. Cromolyn (sodium) has a role in the prevention of Chronic lung disease (CLD). Cromolyn (sodium) cannot be recommended for the prevention of CLD in preterm infants<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

## CUSTOMER VALIDATION

- Pharmacol Res. 2017 Nov;125(Pt B):150-160.
- J Med Chem. 2021 Sep 21.
- J Ethnopharmacol. 2023: 116093.

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## REFERENCES

- [1]. Gan, X., et al., Treatment of mice with cromolyn sodium after reperfusion, but not prior to ischemia, attenuates small intestinal ischemia-reperfusion injury. Mol Med Rep, 2013. 8(3): p. 928-34.
- [2]. Ng, G. and A. Ohlsson, Cromolyn sodium for the prevention of chronic lung disease in preterm infants. Cochrane Database Syst Rev, 2012. 6: p. CD003059.
- [3]. Huang L, et al. Sinomenine-induced histamine release-like anaphylactoid reactions are blocked by tranilast via inhibiting NF- $\kappa$ B signaling. Pharmacol Res. 2017 Aug 31. pii: S1043-6618(17)30796-X.

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

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