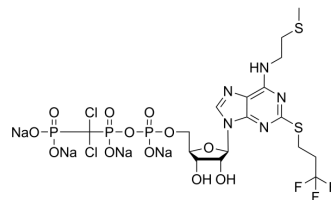


## Cangrelor tetrasodium

<b>Cat. No.:</b>	HY-19638A
<b>CAS No.:</b>	163706-36-3
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>21</sub> Cl <sub>2</sub> F <sub>3</sub> N <sub>5</sub> Na <sub>4</sub> O <sub>12</sub> P <sub>3</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	864.29
<b>Target:</b>	P2Y Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 125 mg/mL (144.63 mM; Need ultrasonic)  
DMSO : 12.5 mg/mL (14.46 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		1.1570 mL	5.7851 mL	11.5702 mL
	5 mM		0.2314 mL	1.1570 mL	2.3140 mL
	10 mM		0.1157 mL	0.5785 mL	1.1570 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 100 mg/mL (115.70 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: 1.25 mg/mL (1.45 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: 1.25 mg/mL (1.45 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: 1.25 mg/mL (1.45 mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

#### Description

Cangrelor tetrasodium, an adenosine triphosphate analogue, is a reversible and selective platelet P2Y<sub>12</sub> antagonist, with prompt and potent antiplatelet effects. Cangrelor tetrasodium directly blocks adenosine diphosphate (ADP)-induced activation and aggregation of platelets. Cangrelor tetrasodium is also a nonspecific GPR17 antagonist<sup>[1][2]</sup>.

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

P2Y<sub>12</sub> Receptor

<b>In Vitro</b>	<p>Cangrelor tetrasodium is the only potent intravenous direct and specific adenosine diphosphate (ADP) P2Y12 receptor antagonist<sup>[1]</sup>.</p> <p>Cangrelor tetrasodium has pK<sub>b</sub> of 8.6-9.2 for hP2Y12 receptor<sup>[3]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
<b>In Vivo</b>	<p>Cangrelor tetrasodium (10 mg/kg) not only significantly decreases BLM-induced release of inflammatory cytokines (PF4, CD40 L and MPO), but also decreases the increment of platelets, neutrophils and platelet-neutrophil aggregates in the fibrotic lung and in the peripheral blood of BLM-treated mice<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

## CUSTOMER VALIDATION

- Mol Nutr Food Res. 2022 May 1;e2200166.

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## REFERENCES

- [1]. Bhattad VB, , et al. Intravenous cangrelor as a peri-procedural bridge with applied uses in ischemic events. Ann Transl Med. 2019;7(17):408.
- [2]. Zhan T, Wei T, et al. Cangrelor alleviates bleomycin-induced pulmonary fibrosis by inhibiting platelet activation in mice. Mol Immunol. 2020;120:83-92.
- [3]. Bekó K, et al. Contribution of platelet P2Y12 receptors to chronic Complete Freund's adjuvant-induced inflammatory pain. J Thromb Haemost. 2017;15(6):1223-1235.

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

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