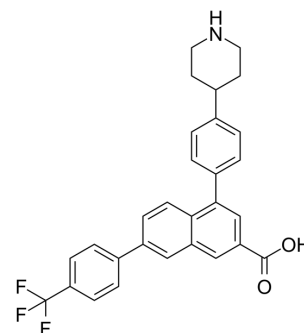


## PPTN

<b>Cat. No.:</b>	HY-110322A
<b>CAS No.:</b>	1160271-30-6
<b>Molecular Formula:</b>	C <sub>29</sub> H <sub>24</sub> F <sub>3</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	475.5
<b>Target:</b>	P2Y Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

<b>Description</b>	PPTN is a potent, high-affinity, competitive and highly selective P2Y <sub>14</sub> receptor antagonist with a K <sub>B</sub> value of 434 pM. PPTN exhibits no agonist or antagonist effect at the P2Y <sub>1</sub> , P2Y <sub>2</sub> , P2Y <sub>4</sub> , P2Y <sub>6</sub> , P2Y <sub>11</sub> , P2Y <sub>12</sub> , or P2Y <sub>13</sub> receptors. Anti-inflammatory and immune activity <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	KB: 434 pM (P2Y <sub>14</sub> receptor) <sup>[1]</sup>
<b>In Vitro</b>	<p>PPTN exhibits strong selectivity for the P2Y<sub>14</sub>-R over the other seven nucleotide-activated P2Y receptors. 1 μM PPTN exhibits no agonist or antagonist effect at the P2Y<sub>1</sub>, P2Y<sub>2</sub>, P2Y<sub>4</sub>, P2Y<sub>6</sub>, P2Y<sub>11</sub>, P2Y<sub>12</sub>, or P2Y<sub>13</sub> receptors<sup>[1]</sup>.</p> <p>PPTN inhibits UDP-glucose-promoted chemotaxis in differentiated HL-60 human promyelocytic leukemia cells with IC<sub>50</sub>s of ~1 nM in the presence of 10 μM UDP-glucose and ~4 nM in the presence of 100 μM<sup>[1]</sup>.</p> <p>PPTN (10 μM) significantly decreases the ratios of p-ERK1/2 to ERK1/2 and p-p38 to p38<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

## REFERENCES

- [1]. Barrett MO, et al. A selective high-affinity antagonist of the P2Y<sub>14</sub> receptor inhibits UDP-glucose-stimulated chemotaxis of human neutrophils. *Mol Pharmacol*. 2013 Jul;84(1):41-9.
- [2]. Lin J, et al. The P2Y<sub>14</sub> receptor in the trigeminal ganglion contributes to the maintenance of inflammatory pain. *Neurochem Int*. 2019 Dec;131:104567.

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

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