# Cav 3.2 inhibitor 1

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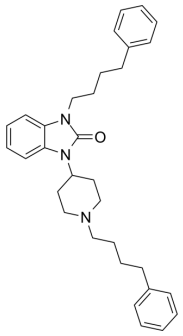
| **Cat. No.:** | HY-151450 |
| **CAS No.:** | 2878598-59-3 |
| **Molecular Formula:** | $C_{32}H_{39}N_3O$ |
| **Molecular Weight:** | 481.67 |
| **Target:** | Calcium Channel |
| **Pathway:** | Membrane Transporter/Ion Channel; Neuronal Signaling |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

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| **Description** | Cav 3.2 inhibitor 1 is a T-type calcium channel inhibitor with little binding affinity to dopamine D2 receptors. Cav 3.2 inhibitor 1 can be used for the research of somatic and visceral pain[1]. |
| **$IC_{50}$ & Target** | Cav 3.2[1] |
| **In Vitro** | Cav 3.2 inhibitor 1 (compound 3a, 0.3 μM) inhibits Cav3.2 activities by about 50% in Cav3.2-transfected HEK293 cells[1].<br>Cav 3.2 inhibitor 1 (1 and 10 μM) displays little binding affinity to D2 receptors[1].<br>Cav 3.2 inhibitor 1 (0.01-1 μM) inhibits T-currents in Cav3.1-expressing HEK293 cells[1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |
| **In Vivo** | Cav 3.2 inhibitor 1 (compound 3a, 10 mg/kg, i.p.) suppresses Cav3.2-dependent somatic and visceral pain in mice[1].<br>Cav 3.2 inhibitor 1 (8 nmol/mouse, i.c.v.) has no effect on long-lasting catalepsy in mice[1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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| Animal Model: | Colonic pain and referred hyperalgesia mice induced by intracolonic (i.col.) administration of $Na_2S$ at 5 nmol/mouse[1]. |
| Dosage: | 1-10 mg/kg |
| Administration: | Intraperitoneal injection (i.p.) |
| Result: | Completely blocked the $Na_2S$-induced colonic pain and referred hyperalgesia. |

## REFERENCES

[1]. Yoshihito Kasanami, et al. Discovery of pimozide derivatives as novel T-type calcium channel inhibitors with little binding affinity to dopamine D 2 receptors for treatment of somatic and visceral pain. Eur J Med Chem. 2022 Aug 27;243:114716.

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

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