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产品名称：3,5-Dichloro-N-[[(1α,5α,6-exo,6α)-3-(3,3-dimethylbutyl)-3-azabicyclo[3.1.0]hex-6-yl]methyl]-benzamid
产品别名：ML218

生物活性：	
Description	ML218 is a selective T-type calcium channel inhibitor with IC50s of 270 and 310 nM for Cav3.3 and Cav3.2 in electrophysiology assay, respectively.
IC_{50} & Target	IC50: 270 nM (Ca_v3.3), 310 nM (Ca_v3.2)[1]
In Vitro	ML218 (CID 45115620) inhibits Cav3.1, Cav3.2, Cav3.3[1].
In Vivo	Electrophysiology studies in STN neurons demonstrate robust effects of ML218 on the inhibition of T-type calcium current, inhibition of low threshold spike, and rebound burst activity. ML218 was found to be orally efficacious in a dose-dependent manner in a preclinical Parkinson's disease model, haloperidol-induced catalepsy, and comparable to clinically validated A2A antagonism[1]. ML218 reaches a peak cerebrospinal fluid concentration 1-2 hrs after s.c. administration. No effects of ML218 on cardiac rhythmicity is found in electrocardiographic studies. ML218 does not have antiparkinsonian effects in MPTP-treated parkinsonian monkeys, due at least in part, to the agent's sedative effects[2].
References	[1]. Xiang Z, et al. The Discovery and Characterization of ML218: A Novel, Centrally Active T-Type Calcium Channel Inhibitor with Robust Effects in STN Neurons and in a Rodent Model of Parkinson's Disease. ACS Chem Neurosci. 2011 Dec 21;2(12):730-742. [2]. https://www.ncbi.nlm.nih.gov/pubmed/22368764

实验参考：	
Animal Administration	Rats: ML218 is administered intravenously (IV) to rats via the jugular vein catheter in 20% DMSO/80% saline at a dose of 1 mg/kg and a dose volume of 1 mL/kg. Blood collections via the carotid artery are performed at predose, and at 2 min, 7 min, 15 min, 30 min, and 1 h, 2 h, 4 h, 7 h, and 24 h post dose. Samples are collected into chilled, EDTA-fortified tubes, and centrifuged for 10 min at 3000 rpm (4°C), and resulting plasma is aliquoted into 96-well plates for LC/MS/MS analysis. For oral exposure studies, measuring both systemic plasma and CNS tissue exposure, ML218 is administered (oral gavage) to fasted rats as suspensions in 10% Tween 80/0.5% methylcellulose at a dose of 10 mg/kg and in a dosing volume of 10 mL/kg; blood and whole brain samples are collected at 1.5 h post dose. Blood is collected into chilled, EDTA-fortified tubes, centrifuged for 10 min at 3000 rpm (4°C), and stored at −80 °C until LC/MS/MS analysis[1].
References	[1]. Xiang Z, et al. The Discovery and Characterization of ML218: A Novel, Centrally Active T-Type Calcium Channel Inhibitor with Robust Effects in STN Neurons and in a Rodent Model of Parkinson's Disease. ACS Chem Neurosci. 2011 Dec 21;2(12):730-742. [2]. https://www.ncbi.nlm.nih.gov/pubmed/22368764