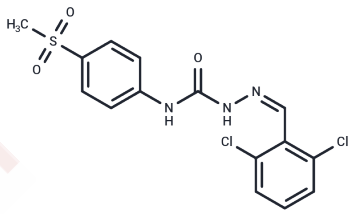
Data Sheet (Cat.No.T61707)

TargetMol

FAAH/MAGL-IN-2

Chemical Properties



CAS No. : 2765077-82-3

Formula: C15H13Cl2N3O3S

Molecular Weight: 386.25

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	FAAH/MAGL-IN-2, a potent and reversible inhibitor of FAAH and MAGL, demonstrates oral activity and the ability to cross the blood-brain barrier. It exhibits IC50 values of 11 nM for FAAH and 36 nM for MAGL (Ki values of 28 nM and 60 nM, respectively). This compound shows promise for neuropathic pain research, without impairing locomotion [1].
Targets(IC50)	Others,FAAH,MAGL
In vitro	FAAH/MAGL-IN-2 (compound 14) exhibited notable neuroprotective effects in a Cell Cytotoxicity Assay with SH-SY5Y cells at 1, 3, 10, 30, and 100 μM concentrations over 24 hours [1].
In vivo	FAAH/MAGL-IN-2, administered at dosages of 10 mg/kg, demonstrates the potential for significant anti-nociceptive effects without impairing motor coordination and locomotor activity. At varying doses (5, 10, 20 mg/kg), it also shows promise in treating neuropathic pain without affecting locomotion. Tolerability and safety assessments reveal that FAAH/MAGL-IN-2, at an oral dose up to 2000 mg/kg in female rats, does not alter liver enzyme activity, signifying its safety at high doses. Additionally, at 20 mg/kg, this compound exhibits favorable oral absorption characteristics. Pharmacokinetic analysis in male Wistar rats, weighing 200-250 g, receiving a 20 mg/kg oral dose, discloses a peak plasma concentration (C max) of 22.04±2.5 μg/mL, occurring at 0.5 hours post-administration, with an area under the curve (AUC 0-t) of 535±1.5 μg min/mL and a half-life (t 1/2) of 20.58 hours, indicating substantial systemic exposure and prolonged circulation time. In neuropathic pain models, both the nerve injury model in rats (CCI model) and studies in 200-250 g male Wistar rats have shown that FAAH/MAGL-IN-2, at dosages of 5, 10, 20 mg/kg administered orally, significantly increases paw withdrawal thresholds and reduces tail flick latency, further supporting its analgesic potential and effective absorption post-oral administration.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.589 mL	12.945 mL	25.890 mL
5 mM	0.5178 mL	2.589 mL	5.178 mL
10 mM	0.2589 mL	1.2945 mL	2.589 mL
50 mM	0.0518 mL	0.2589 mL	0.5178 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.