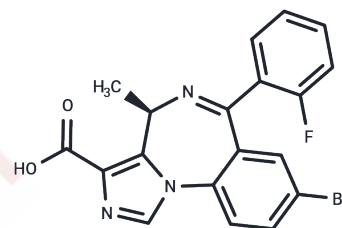


MIDD0301

## Chemical Properties

CAS No. : 2187489-08-1  
 Formula: C<sub>19</sub>H<sub>13</sub>BrFN<sub>3</sub>O<sub>2</sub>  
 Molecular Weight: 414.23  
 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	MIDD0301 is a potent positive allosteric $\alpha 5\beta 3\gamma$ selective GABA <sub>A</sub> receptor (GABA <sub>A</sub> R) ligand with EC <sub>50</sub> of 17 nM.
Targets(IC <sub>50</sub> )	GABA Receptor
In vivo	MIDD0301 did not reveal signs of general toxicity as determined by animal weight, organ weight or haematology after employing oral administration of mice twice daily with 100 mg/kg MIDD0301 mixed in peanut butter for 28 days [1]. Spleen and thymus weights were unchanged and the number of small intestine Peyer's patches was not affected in MIDD0301-treated mice. MIDD0301 treatment did not alter IgG antibody responses to dinitrophenyl following dinitrophenyl-keyhole limpet haemocyanin immunization [1]. MIDD0301 relaxed histamine-contracted guinea pig ( P < 0.05, n = 6-9) and human ( P < 0.05, n = 6-10) tracheal smooth muscle ex vivo in organ bath experiments, dilates mouse peripheral airways ex vivo in precision-cut lung-slice experiments ( P < 0.001, n = 16 airways from three mice), and alleviates bronchoconstriction in vivo in mice, as assessed by the forced-oscillation technique ( P < 0.05, n = 6 mice) [2].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4141 mL	12.0706 mL	24.1412 mL
5 mM	0.4828 mL	2.4141 mL	4.8282 mL
10 mM	0.2414 mL	1.2071 mL	2.4141 mL
50 mM	0.0483 mL	0.2414 mL	0.4828 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.

### Reference

Nicolas M Zahn, et al. MIDD0301 - A first-in-class anti-inflammatory asthma drug targets GABA A receptors without causing systemic immune suppression. *Basic Clin Pharmacol Toxicol.* 2019 Jul;125(1):75-84.

Gene T Yocum, et al. A novel GABA A receptor ligand MIDD0301 with limited blood-brain barrier penetration relaxes airway smooth muscle ex vivo and in vivo. *Am J Physiol Lung Cell Mol Physiol.* 2019 Feb 1;316(2):L385-L390.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481