

Product Data Sheet

Product Name: MS48107

Cat. No.: GC63081

Chemical Properties

Cas. No. 2375070-79-2

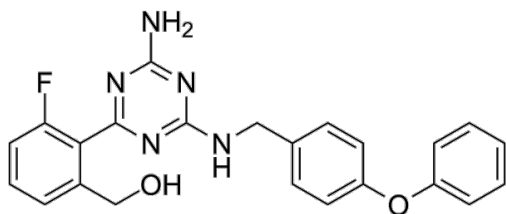
Formula $C_{23}H_{20}FN_5O_2$ M.Wt 417.44

Solubility DMSO : 100 mg/mL (239.56 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

MS48107 is a potent and selective positive allosteric modulator of G protein-coupled receptor 68 (GPR68). MS48107 is selective for GPR68 over the closely related proton GPCRs, neurotransmitter

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

transporters, and hERG ion channels. MS48107 can readily cross the blood-brain barrier (BBB) in mice[1].

5-HT_{2B} has moderate binding affinity to MS48107 (compound 71) with a K_i value of 219 nM. At 5-HT_{2B} receptors, MS48107 shows no agonist activity but display weak antagonist activity with a K_i value of 310 nM, respectively[1]. MS48107 (compound 71) has agonist activity only at the MT₁ and MT₂ receptors. MS48107 is a weak full agonist at the MT₁ receptor (EC_{50} = 320 nM) and a weak partial agonist activity at the MT₂ receptor (EC_{50} = 540 nM). MS48107 displays low binding affinities to MT₁ (5900 nM) and MT₂ (1100 nM) receptors[1].

For MS48107 (compound 71), a single intraperitoneal injection at the dose of 25 mg/kg leads to high exposure levels (above 10 μ M) in both plasma and brain at 0.5 h in mice (Swiss Albino mice). The high compound exposure levels in both plasma and brain are maintained for 2 h[1].

[1]. Xufen Yu, et al. Design, Synthesis, and Characterization of Ogerin-Based Positive Allosteric Modulators for G Protein-Coupled Receptor 68 (GPR68). J Med Chem. 2019 Aug 22;62(16):7557-7574.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA