

Product data sheet



MedKoo Cat#: 532101 Name: L838417 CAS: 286456-42-6 Chemical Formula: C ₁₉ H ₁₉ F ₂ N ₇ O Exact Mass: 399.1619 Molecular Weight: 399.4058	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

L838417 is a GABAA receptor modulator.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	19.97	50.0

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.50 mL	12.52 mL	25.04 mL
5 mM	0.50 mL	2.50 mL	5.01 mL
10 mM	0.25 mL	1.25 mL	2.50 mL
50 mM	0.05 mL	0.25 mL	0.50 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

1. Morales M, Varlinskaya EI, Spear LP. Anxiolytic effects of the GABA(A) receptor partial agonist, L-838,417: impact of age, test context familiarity, and stress. *Pharmacol Biochem Behav.* 2013 Aug;109:31-7. doi: 10.1016/j.pbb.2013.05.004. Epub 2013 May 8. PMID: 23664899; PMCID: PMC3765038.

2. McMahon LR, France CP. Differential behavioral effects of low efficacy positive GABAA modulators in combination with benzodiazepines and a neuroactive steroid in rhesus monkeys. *Br J Pharmacol.* 2006 Feb;147(3):260-8. doi: 10.1038/sj.bjp.0706550. PMID: 16331290; PMCID: PMC1751295.

7. Bioactivity

Biological target:

L-838417 is a selective partial agonist at the α_2 , α_3 and α_5 subtypes of the GABAA receptor and an antagonist at the α_1 , with binding K_i values of 0.79 nM, 0.67 nM, 1.67 nM, 267 nM, 2.25 nM and 2183 nM for $\alpha_1\beta_3\gamma_2$, $\alpha_2\beta_3\gamma_2$, $\alpha_3\beta_3\gamma_2$, $\alpha_4\beta_3\gamma_2$, $\alpha_5\beta_3\gamma_2$ and $\alpha_6\beta_3\gamma_2$.

In vitro activity

TBD

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In vivo activity

In Experiment 1, L-838,417 produced anxiolytic effects in rat adults at 1.0 mg/kg, as indexed by a transformation of social avoidance into preference and an increase in social investigation.

Reference: Pharmacol Biochem Behav. 2013 Aug;109:31-7. <https://pubmed.ncbi.nlm.nih.gov/23664899/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.