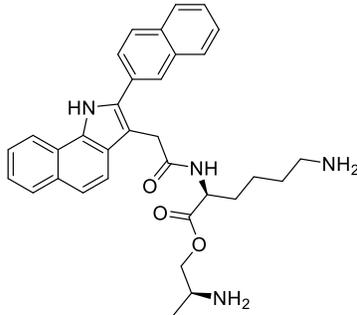# Product data sheet

MedKoo Cat#: 532099
Name: L-817,818
CAS: 217480-27-8
Chemical Formula: $C_{33}H_{36}N_4O_3$
Exact Mass: 536.2787
Molecular Weight: 536.676

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:

L-817,818 is a potent and selective somatostatin sst5 receptor agonist. L-817,818 has Ki values are 0.4, 3.3, 52, 64 and 82 nM for cloned human sst5, sst1, sst2, sst3 and sst4 receptors respectively. L-817,818 inhibits growth hormone release from rat pituitary cells (EC50 = 3.1 nM) and insulin release from mouse pancreatic islets (EC50 = 0.3 nM) in vitro.

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	53.67	100.0

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.86 mL	9.32 mL	18.63 mL
5 mM	0.37 mL	1.86 mL	3.73 mL
10 mM	0.19 mL	0.93 mL	1.86 mL
50 mM	0.04 mL	0.19 mL	0.37 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

1. Li Y, Li X, Geng C, Guo Y, Wang C. Somatostatin receptor 5 is critical for protecting intestinal barrier function in vivo and in vitro. Mol Cell Endocrinol. 2021 Sep 15;535:111390. doi: 10.1016/j.mce.2021.111390. Epub 2021 Jul 2. PMID: 34224803.

2. Zhang Y, Wu N, Li Q, Hu X, Wang L, Sun JG, Wang Z, Sun XH. Neuroprotective effect of the somatostatin receptor 5 agonist L-817,818 on retinal ganglion cells in experimental glaucoma. Exp Eye Res. 2021 Mar;204:108449. doi: 10.1016/j.exer.2021.108449. Epub 2021 Jan 16. PMID: 33465395.

In vivo study

1. Li Q, Zhang Y, Wu N, Yin N, Sun XH, Wang Z. Activation of somatostatin receptor 5 suppresses T-type Ca2+ channels through NO/cGMP/PKG signaling pathway in rat retinal ganglion cells. Neurosci Lett. 2019 Aug 24;708:134337. doi: 10.1016/j.neulet.2019.134337. Epub 2019 Jun 18. PMID: 31220522.

2. Kiagiadaki F, Savvaki M, Thermos K. Activation of somatostatin receptor (sst 5) protects the rat retina from AMPA-induced neurotoxicity. Neuropharmacology. 2010 Jan;58(1):297-303. doi: 10.1016/j.neuropharm.2009.06.028. Epub 2009 Jul 2. PMID: 19576912.

Product data sheet

7. Bioactivity

Biological target:

L-817818 is a potent and subtype-selective agonist of the Somatostatin Receptor.

In vitro activity

L817,818 treatment markedly suppressed TNF-α-induced NF-κB p65 phosphorylation, myosin light chain kinase (MLCK) upregulation and myosin light chain (MLC) phosphorylation.

Reference: Mol Cell Endocrinol. 2021 Sep 15;535:111390. https://pubmed.ncbi.nlm.nih.gov/34224803/

In vivo activity

The effects of sst5 receptor activation on T-type Ca2+ channels in acutely isolated retinal ganglion cells (RGCs) of rats were investigated using whole-cell patch-clamp techniques. The sst5 receptor specific agonist L-817,818 significantly and reversibly suppressed T-type Ca2+ currents, and shifted inactivation curve of the channels toward hyperpolarization direction. The effect of L-817,818 was in a dose-dependent manner, with an IC_{50} being 8.8 μM.

Reference: Neurosci Lett. 2019 Aug 24;708:134337. https://pubmed.ncbi.nlm.nih.gov/31220522/

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.