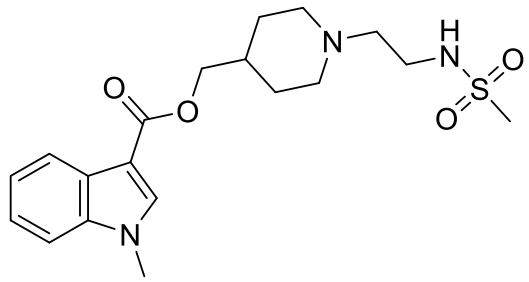
Product data sheet

MedKoo Cat#: 531848 Name: GR 113808 CAS: 144625-51-4 Chemical Formula: $C_{19}H_{27}N_3O_4S$ Exact Mass: 393.1722 Molecular Weight: 393.502	
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:
GR 113808 is a potent, selective 5-HT4 receptor antagonist (pKB = 9.43 in human colonic muscle, and Kd = 0.15 nM for binding to cloned human 5-HT4 receptors). GR 113808 displays > 300-fold selectivity over 5-HT1A, 5-HT1B, 5-HT2A, 5-HT2C and 5-HT3 receptors.

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	39.0	99.11

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.54 mL	12.71 mL	25.41 mL
5 mM	0.51 mL	2.54 mL	5.08 mL
10 mM	0.25 mL	1.27 mL	2.54 mL
50 mM	0.05 mL	0.25 mL	0.51 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. Gale JD, Grossman CJ, Whitehead JW, Oxford AW, Bunce KT, Humphrey PP. GR113808: a novel, selective antagonist with high affinity at the 5-HT4 receptor. Br J Pharmacol. 1994 Jan;111(1):332-8. doi: 10.1111/j.1476-5381.1994.tb14064.x. PMID: 8012715; PMCID: PMC1910004.

In vivo study

1. Gale JD, Grossman CJ, Whitehead JW, Oxford AW, Bunce KT, Humphrey PP. GR113808: a novel, selective antagonist with high affinity at the 5-HT4 receptor. Br J Pharmacol. 1994 Jan;111(1):332-8. doi: 10.1111/j.1476-5381.1994.tb14064.x. PMID: 8012715; PMCID: PMC1910004.

7. Bioactivity
Biological target:

GR 113808 is a potent and highly selective 5-HT_4 receptor antagonist (pK_b= 8.8).

In vitro activity

Product data sheet

Incubation with GR113808 (10.0 nM) for either 15, 30 or 60 min displaced 5-HT concentration-effect curves to the right, producing curves with EC_{50} values of 0.78 (0.46-1.33) μM (n = 3), 1.22 (0.79-1.88) μM (n = 3) and 0.88 (0.07-12.70) μM (n = 3) respectively (Figure 3a).

Reference: Br J Pharmacol. 1994 Jan;111(1):332-8. https://pubmed.ncbi.nlm.nih.gov/8012715/

In vivo activity

On the guinea-pig ascending colon, GR113808 (1 nM-0.1 μM) behaved as an antagonist of 5-hydroxytryptamine (5-HT)-induced contraction, producing rightward displacements of the concentration-effect curve to 5-HT and a concentration-related depression of the maximum effect.

Reference: Br J Pharmacol. 1994 Jan;111(1):332-8. https://pubmed.ncbi.nlm.nih.gov/8012715/

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.