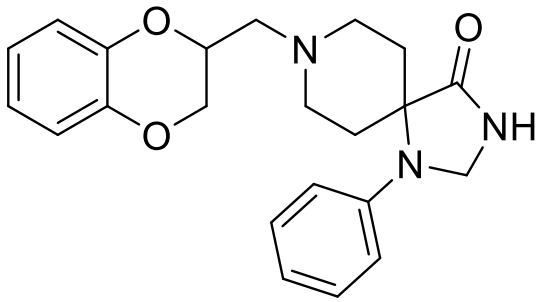
Product data sheet

MedKoo Cat#: 584390 Name: Spiroxatrine CAS#: 1054-88-2 Chemical Formula: $C_{22}H_{25}N_3O_3$ Exact Mass: 379.1896 Molecular Weight: 379.46	
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:
Spiroxatrine is a potent dopamine antagonist that most likely functions as an agonist at the 5-HT1A receptor. This compound is similar to buspirone in that it has a prominent dopamine antagonist component and has been found to produce greater anxiolytic effects when combined with buspirone.

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	1.92	5.06

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.64 mL	13.18 mL	26.35 mL
5 mM	0.53 mL	2.64 mL	5.27 mL
10 mM	0.26 mL	1.32 mL	2.64 mL
50 mM	0.05 mL	0.26 mL	0.53 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

To be determined

In vivo study

1. Liu ZY, Zhuang DB, Lunderberg T, Yu LC. Involvement of 5-hydroxytryptamine(1A) receptors in the descending anti-nociceptive pathway from periaqueductal gray to the spinal dorsal horn in intact rats, rats with nerve injury and rats with inflammation. Neuroscience. 2002;112(2):399-407. doi: 10.1016/s0306-4522(02)00038-6. PMID: 12044457.
2. Terrón JA, Ransanz V, Ibarra M, Hong E, Villalón CM. Alpha 1-adrenoceptor blocking properties of spiroxatrine in rat aorta. Life Sci. 1992;51(1):PL1-6. doi: 10.1016/0024-3205(92)90222-b. PMID: 1352025.

7. Bioactivity
Biological target:

Spiroxatrine is a dual antagonist of 5-HT1α and α2-adrenergic, with Ki values of 3.94, 224000, 118.5 nM for 5-HT1α, 5-HT1β and 5-HT2, respectively.

In vitro activity

To be determined

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In vivo activity

Results from this study show that the 5-HT(1A) receptor, but not the 5-HT(2) or 5-HT(3) receptor, plays a significant role in pain relief in a murine model. Intrathecal administration of spiroxatrine, but not RS 102221 nor MDL 72222, significantly attenuated the increased hindpaw withdrawal latencies induced by intra-periaqueductal gray administration of morphine in rats with nerve injury and in rats with inflammation.

Reference: Neuroscience. 2002;112(2):399-407. https://pubmed.ncbi.nlm.nih.gov/12044457/

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.