

Product data sheet



MedKoo Cat#: 530904 Name: RO10-5824 CAS#: 189744-46-5 Chemical Formula: C ₁₇ H ₂₀ N ₄ Exact Mass: 280.1688 Molecular Weight: 280.38	
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:

RO10-5824 is a D₄-selective partial agonist. RO10-5824 is a potent candidate for the management of cocaine use disorders.

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
To be determined	To be determined	To be determined

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.57 mL	17.83 mL	35.67 mL
5 mM	0.71 mL	3.57 mL	7.13 mL
10 mM	0.36 mL	1.78 mL	3.57 mL
50 mM	0.07 mL	0.36 mL	0.71 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

- Bergman J, Rheingold CG. Dopamine D₄ Receptor Antagonists for the Treatment of Cocaine Use Disorders. *CNS Neurol Disord Drug Targets*. 2015;14(6):707-15. doi: 10.2174/1871527314666150529132723. PMID: 26022267.
- Murai T, Nakako T, Ikeda K, Ikejiri M, Ishiyama T, Taiji M. Lack of dopamine D₄ receptor affinity contributes to the procognitive effect of lurasidone. *Behav Brain Res*. 2014 Mar 15;261:26-30. doi: 10.1016/j.bbr.2013.11.036. Epub 2013 Dec 1. PMID: 24304719.

7. Bioactivity

Biological target:

RO10-5824 is a D₄-selective partial agonist (EC₅₀ = 205 nM) that binds with high affinity (K_i = 5.2 nM), and is approximately 250-fold selectivity over D₃ receptors and > 1000-fold selectivity over D₂, D₁ and D₅ receptors.

In vitro activity

To be determined

In vivo activity

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This study presents data from self administration studies in nonhuman primates that shows that intravenous cocaine-maintained behavior is moderately decreased by doses of Ro10-5824.

Reference: CNS Neurol Disord Drug Targets. 2015;14(6):707-15. <https://pubmed.ncbi.nlm.nih.gov/26022267/>

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.