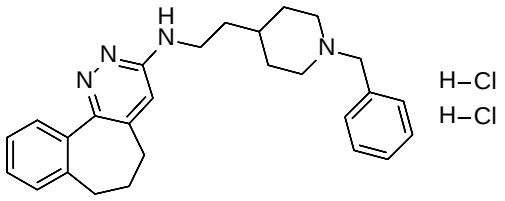
Product data sheet

MedKoo Cat#: 561488 Name: PCS1055 CAS: 361979-40-0 Chemical Formula: $C_{27}H_{34}Cl_2N_4$ Molecular Weight: 485.497	
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:
PCS1055 is a muscarinic M4 receptor antagonist. PCS1055 represents a new M4-preferring antagonist that may be useful in elucidating the roles of M4 receptor signaling.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.06 mL	10.30 mL	20.60 mL
5 mM	0.41 mL	2.06 mL	4.12 mL
10 mM	0.21 mL	1.03 mL	2.06 mL
50 mM	0.04 mL	0.21 mL	0.41 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

Croy CH, Chan WY, Castetter AM, Watt ML, Quets AT, Felder CC. Characterization of PCS1055, a novel muscarinic M4 receptor antagonist. Eur J Pharmacol. 2016 Jul 5;782:70-6. doi: 10.1016/j.ejphar.2016.04.022. Epub 2016 Apr 13. PMID: 27085897.

In vivo study

TBD

7. Bioactivity
Biological target:

PCS1055 dihydrochloride is a potent, selective and competitive muscarinic M4 receptor antagonist with an IC50 of 18.1 nM and a Kd of 5.72 nM.

In vitro activity

PCS1055 inhibited radioligand [(3)H]-NMS binding to the M4 receptor with a Ki=6.5nM. These GTP-γ-[(35)S] binding studies showed that PCS1055 exhibited 255-, 69.1-, 342- and >1000-fold greater inhibition of Oxo-M activity at the M4 versus the M1-, M2(-), M3-or M5 receptor subtypes, respectively. Schild analyses indicates that PCS1055 acts as a competitive antagonist to muscarinic M4 receptor, and confirms the affinity of the ligand to be low nanomolar, Kb=5.72nM.

Reference: Eur J Pharmacol. 2016 Jul 5;782:70-6. https://pubmed.ncbi.nlm.nih.gov/27085897/

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In vivo activity

TBD

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.