

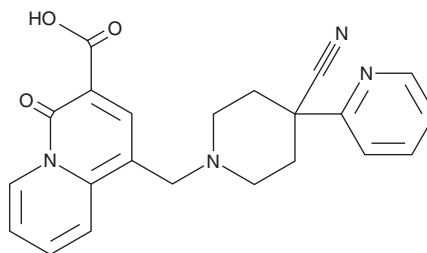
PRODUCT INFORMATION



MSD-M1PAM

Item No. 41358

CAS Registry No.: 1144504-35-7
Formal Name: 1-[[4-cyano-4-(2-pyridinyl)-1-piperidinyl]methyl]-4-oxo-4H-quinolizine-3-carboxylic acid
Synonym: PQCA
MF: C₂₂H₂₀N₄O₃
FW: 388.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MSD-M1PAM is supplied as a solid. A stock solution may be made by dissolving the MSD-M1PAM in the solvent of choice, which should be purged with an inert gas. MSD-M1PAM is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

Description

MSD-M1PAM is a positive allosteric modulator of M₁ muscarinic acetylcholine receptors (mAChRs).¹ It enhances ACh-induced calcium production in a calcium mobilization assay when used at concentrations ranging from 0.1 to 10 μM. *In vivo*, MSD-M1PAM (1-30 mg/kg) reverses scopolamine-induced deficits in freezing behavior in mice. It also attenuates deficits in self-ordered spatial search in cynomolgus macaques and in the object retrieval detour task in rhesus macaques.²

References

1. Kuduk, S.D., Chang, R.K., Di Marco, C.N., *et al.* Discovery of a selective allosteric M₁ receptor modulator with suitable development properties based on a quinolizidinone carboxylic acid scaffold. *J. Med. Chem.* **54**(13), 4773-4780 (2011).
2. Uslaner, J.M., Eddins, D., Puri, V., *et al.* The muscarinic M1 receptor positive allosteric modulator PQCA improves cognitive measures in rat, cynomolgus macaque, and rhesus macaque. *Psychopharmacology (Berl)* **225**(1), 21-30 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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