# PRODUCT INFORMATION



MK-7622

Item No. 34407

CAS Registry No.: 1227923-29-6

Formal Name: 3-[(1S,2S)-2-hydroxycyclohexyl]-

> 6-[(6-methyl-3-pyridinyl)methyl]benzo[h]quinazolin-4(3H)-one

MF:  $C_{25}H_{25}N_3O_2$ 

399.5 FW: ≥98% **Purity:** 

UV/Vis.:  $\lambda_{\text{max}}$ : 252 nm

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**

MK-7622 is supplied as a solid. A stock solution may be made by dissolving the MK-7622 in the solvent of choice, which should be purged with an inert gas. MK-7622 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MK-7622 in DMF is approximately 5 mg/ml and approximately 1 mg/ml in ethanol and DMSO.

MK-7622 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MK-7622 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MK-7622 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

MK-7622 is a positive allosteric modulator of muscarinic M<sub>1</sub> acetylcholine receptors (mAChRs).<sup>1</sup> It increases ACh-induced calcium flux in CHO cells expressing human  $M_1$  receptors (EC<sub>50</sub> = 21 nM). MK-7622 (0.3 and 1 mg/kg) reverses scopolamine-induced cognitive deficits in an object retrieval detour task in rhesus macaques.

### Reference

1. Uslaner, J.M., Kuduk, S.D., Wittmann, M., et al. Preclinical to human translational pharmacology of the novel M<sub>1</sub> positive allosteric modulator MK-7622. J. Pharmacol. Exp. Ther. 365(3), 556-566 (2018).

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

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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