

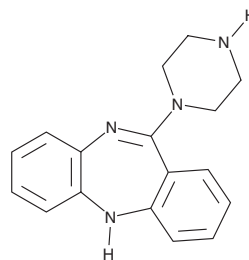
PRODUCT INFORMATION



DREADD Agonist 21

Item No. 18907

CAS Registry No.: 56296-18-5
Formal Name: 11-(1-piperazinyl)-5H-dibenzo[b,e][1,4]diazepine
MF: C₁₇H₁₈N₄
FW: 278.4
Purity: ≥98%
UV/Vis.: λ_{max}: 224, 295 nm
Supplied as: A crystalline 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

DREADD agonist 21 is supplied as a crystalline solid. A stock solution may be made by dissolving the DREADD agonist 21 in the solvent of choice. DREADD agonist 21 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DREADD agonist 21 in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

DREADD agonist 21 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DREADD agonist 21 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DREADD agonist 21 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DREADD agonist 21 activates hM3Dq (EC₅₀ = 1.7 nM), a designer receptor exclusively activated by designer drugs (DREADD) derived from the human muscarinic acetylcholine M₃ receptor.¹ It does not agonize the hM3 receptor and displays relatively weaker binding affinities for serotonin 5-HT_{2A}, 5-HT_{2C}, α_{1A}-adrenergic, and histamine H₁ receptors (K_s = 66, 170, 280, and 6 nM, respectively).¹

Reference

1. Chen, X., Choo, H., Huang, X.-P., *et al.* The first structure-activity relationship studies for designer receptors exclusively activated by designer drugs. *ACS Chem. Neurosci.* **6**(3), 476-484 (2015).

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.

WARRANTY AND LIMITATION OF REMEDY

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