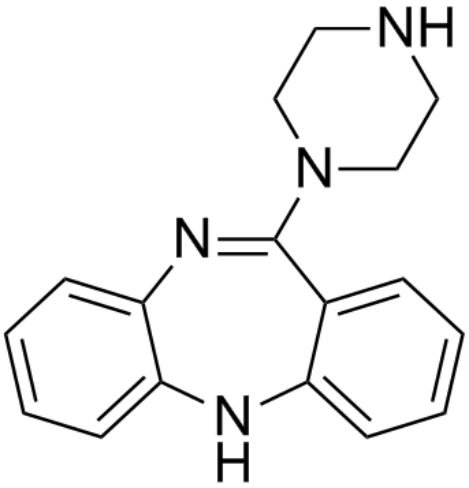
Product Data Sheet

Product Name: DREADD agonist 21
Cat. No.: GC30849

Chemical Properties

Cas. No.	56296-18-5		
SMILES	C12=CC=CC=C1NC3=CC=CC=C3C(N4CCNCC4)=N2		
Formula	$C_{17}H_{18}N_4$	M.Wt	278.35
Solubility	DMSO : ≥ 78 mg/mL (280.22 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

DREADD agonist 21 is a potent human muscarinic acetylcholine M3 receptors (hM3Dq) agonist(EC50=1.7 nM).

DREADD agonist 21 is a potent human muscarinic acetylcholine M3 receptors (hM3Dq) agonist (EC50=1.7 nM) and does not activate human M3 receptor (hM3). In addition to being inactive at hM3, DREADD agonist 21, a potent full agonist of hM3Dq (EC50=1.7 nM), is only 3.5-fold selective for hM3Dq over H1, 40-fold selective over 5HT2A, 100-fold selective over 5HT2C, and 165-fold selective

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over α1A. DREADD agonist 21 shows high binding affinities to 5HT2A and 5HT2C serotonin receptor, α1A adrenergic receptor, and H1 histamine receptor with Ki values of 66, 170, 280, and 6 nM, respectively[1].

[1]. Chen X, et al. The first structure-activity relationship studies for designer receptors exclusively activated by designer drugs. ACS Chem Neurosci. 2015 Mar 18;6(3):476-84.

Caution: Product has not been fully validated for medical applications. For research use only.
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