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DATASHEET

uPSEM817 tartrate

Product overview

Name	uPSEM817 tartrate
Cat No	HB8620
Biological action	Agonist
Purity	>99%
Description	Selective, ultrapotent PSEM agonist for PSAM^4-GlyR and PSAM^4-5HT3. Brain penetrant.

Biological Data

Biological description

Overview

Selective, ultrapotent PSEM agonist for PSAM^4-GlyR and PSAM^4-5HT3 (K_i values are 0.15 nM and and EC_{50} = 0.3 nM at PSAM^4-GlyR) which can be used for targeted control of brain activity in rodent and primate models.

It has excellent selectivity with 5000- to 10,000-fold selectivity for PSAM^4-GlyR over α-7-GlyR, α7-5HT3R and 5-HT3R. It also does not show evident α4β2 nAChR agonism up to 30 µM.

It does not act as a P-glycoprotein pump (PgP) substrate.

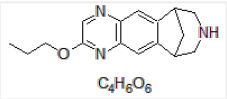
Uses and applications

It strongly suppresses layer 2/3 cortical neurons expressing PSAM^4-GlyR in brain slices at low concentrations (ranging from 1-15 nM).

Solubility & Handling

Storage instructions	-20°C
Storage buffer	Soluble in DMSO (100 mM), and in water (50 mM, gentle warming)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	2-Propoxy-7,8,9,10-tetrahydro-6H-6,10-methanoazepino[4,5-g]quinoxaline L-tartrate
Molecular Weight	419.43
Chemical structure	
Molecular Formula	$C_{16}H_{19}N_3O.C_4H_6O_6$
CAS Number	2341833-14-3
PubChem identifier	138991793
SMILES	CCCOC1=NC2=C(N=C1)C=C(C3=C2)C4CNCC3C4.O[C@@H](C(O)=O)[C@@H](O)C(O)=O
Source	Synthetic
InChi	InChI=1S/C16H19N3O.C4H6O6/c1-2-3-20-16-9-18-14-5-12-10-4-11(8-17-7-10)13(12)6-15(14)19-16;5-1(3(7)8)2(6)4(9)10/h5-6,9-11,17H,2-4,7-8H2,1H3;1-2,5-6H,(H,7,8)(H,9,10)/t;1-,2-/m.1/s1

InChiKey	ATMVSWRWVDLFOP-LREBCSMRSA-N
Appearance	Off-white solid
Licensing details	Sold under license from the Howard Hughes Medical Institute, Janelia Research Campus. For scientific research use only. This product may not be used to research, develop, make, use, offer to sell, sell, or import any products for human therapeutic uses.

References

Ultrapotent chemogenetics for research and potential clinical applications.

Magnus CJ *et al* (2019) Science 364(6436)

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