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# **DATASHEET**

FCH-2296413 sodium salt (Peripherally restricted HCAD DREADD actuator) [Water Soluble]

#### **Product overview**

Name FCH-2296413 sodium salt (Peripherally restricted HCAD DREADD actuator) [Water Soluble]

Cat No HB10013
Biological action Activator
Purity >98%

**Description** Novel, selective activator of the peripherally restricted HCAD DREADD. Does not cross the BBB.

Water soluble.

### **Images**



### **Biological Data**

**Biological description** 

Novel DREADD actuator for the first peripherally restricted DREADD system named the HCAD DREADD system. Water soluble. The HCAD system enables precise study of peripheral physiology without CNS interference.

FCH-2296413 does not cross the BBB (unlike other DREADD ligands (e.g. CNO & DCZ)), so can selectively activate the novel, peripherally restricted HCAD G<sub>i</sub>.DREADD. Few DREADD studies have been conducted in the PNS to date.

FCH-2296413 has excellent drug-like properties, peripherally restricted pharmacokinetics and clean off-target profiles. The HCAD system also selectively reduces pain in mice by targeting peripheral tissues of DRG (dorsal root ganglion). Active *in-vivo*. FCH-2296413 is a racemic mixture which includes the racemates AR2599088 ('088) and AR259089 ('089).

# **Solubility & Handling**

Solubility overview Storage instructions Storage of solutions Soluble in water (100 mM)

-20°C

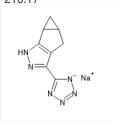
Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if

**Shipping Conditions Important** 

storage is required. Equilibrate to RT and ensure the solution is precipitate free before use. Stable for ambient temperature shipping. Follow storage instructions on receipt. 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 Molecular Weight Chemical structure rac-(2R,4R)-7-(1H-1,2,3,4-tetrazol-5-yl)-8,9-diazatricyclo[4.3.0.0,2,4]nona-1(6),7-diene, sodium salt 210.17



**Molecular Formula** 

SMILES Source

InChi InC

Appearance

 $C_8H_7N_6Na$  [Na+].[H][C@@]12C[C@]1([H])C1=C(C2)C(=NN1)C1=NN=N[N-]1

Synthetic

InChl=1/C8H7N6.Na/c1-3-2-5-6(4(1)3)9-10-7(5)8-11-13-14-12-8;/h3-4H,1-2H2,(H-,9,10,11,12,13,14);/q-1;+1/t3-,4-;/s2

white solid

### References

Structure-guided design of a peripherally restricted chemogenetic system.

Kang HJ et al (2024) Cell 187

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