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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**

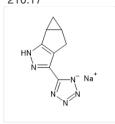
Storage instructions Solubility overview Important -20°C

Soluble in water (100 mM)

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

## **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 C<sub>8</sub>H<sub>7</sub>N<sub>6</sub>Na

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

Synthetic

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

;/q-1;+1/t3-,4-;/s2

Appearance white solid

### References

Structure-guided design of a peripherally restricted chemogenetic system.

Kang HJ et al (2024) Cell 187

PubMedID 39631393/