

Hello Bio, Inc.  
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500  
F. 609-228-4994

customercare-usa@hellobio.com



## DATASHEET

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

### Product overview

|                          |   |
|--------------------------|---|
| <b>Name</b>              | FCH-2296413 sodium salt (Peripherally restricted HCAD DREADD actuator) [Water Soluble]                        |
| <b>Cat No</b>            | HB10013   |
| <b>Biological action</b> | Activator   |
| <b>Purity</b>            | >98%  |
| <b>Description</b>       | Novel, selective activator of the peripherally restricted HCAD DREADD. Does not cross the BBB. Water soluble. |

### Images



### Biological Data

|                               |   |
|-------------------------------|---|
| <b>Biological description</b> | 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. |
|-------------------------------|---|

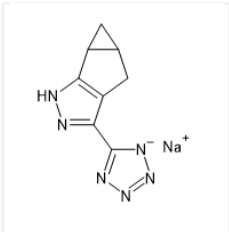
FCH-2296413 does not cross the BBB (unlike other DREADD ligands (e.g. **CNO** & **DCZ**)), so can selectively activate the novel, peripherally restricted HCAD  $G_i$ -DREADD. Few DREADD studies have been conducted in the PNS to date.

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

|                             |  |
|-----------------------------|--|
| <b>Storage instructions</b> | -20 °C   |
| <b>Solubility overview</b>  | Soluble in water (100 mM)  |
| <b>Important</b>            | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not |

## Chemical Data

|                    |   |
|--------------------|---|
| Chemical name      | 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             |
| Molecular Weight   | 210.17  |
| Chemical structure |                                  |
| Molecular Formula  | C <sub>8</sub> H <sub>7</sub> N <sub>6</sub> Na   |
| SMILES             | [Na+].[H][C@@]12C[C@]1([H])C1=C(C2)C(=NN1)C1=NN=N[N-]1  |
| Source             | Synthetic   |
| InChi              | InChI=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/](#)