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## DATASHEET

### uPSEM792 hydrochloride

#### Product overview

<b>Name</b>	uPSEM792 hydrochloride
<b>Cat No</b>	HB8542
<b>Biological action</b>	Agonist
<b>Purity</b>	>99%
<b>Description</b>	Ultrapotent PSEM agonist for PSAM <sup>4</sup> -GlyR and PSAM <sup>4</sup> -5HT3. Brain penetrant.

#### Biological Data

##### Biological description

##### Overview

Ultrapotent PSEM agonist for PSAM<sup>4</sup>-GlyR and PSAM<sup>4</sup>-5HT3 (K<sub>i</sub> values are 0.7 nM and 10,000-fold agonist selectivity for PSAM<sup>4</sup>-GlyR over α-7-GlyR, α7-5HT3R and 5-HT3R.

uPSEM792 is a very weak agonist at α4β2 nAChR and shows 230-fold selectivity for PSAM<sup>4</sup>-GlyR over α4β2 nAChR.

It retains the potency of varenicline for PSAM<sup>4</sup>-GlyR with enhanced chemogenetic selectivity.

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

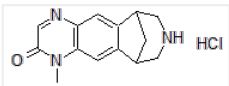
##### Uses and applications

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

#### 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 for human or veterinary use

#### Chemical Data

<b>Chemical name</b>	1-Methyl-7,8,9,10-tetrahydro-1H-6,10-methanoazepino[4,5-g]quinoxalin-2(6H)-one hydrochloride
<b>Molecular Weight</b>	277.75
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>14</sub> H <sub>15</sub> N <sub>3</sub> O · HCl
<b>CAS Number</b>	2341841-08-3
<b>PubChem identifier</b>	138991792
<b>SMILES</b>	CN1C2=C(C=C3C4CC(C3=C2)CNC4)N=CC1=O.Cl
<b>InChi</b>	InChI=1S/C14H15N3O.ClH/c1-17-13-4-11-9-2-8(5-15-6-9)10(11)3-12(13)16-7-14(17)18;/h3-4,7-9,15H,2,5-6H2,1H3;1H

**InChiKey**  
**Appearance**  
**Licensing details**

CDHPEJUYEXNGCV-UHFFFAOYSA-N

Yellow solid

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## References

### **Ultrapotent chemogenetics for research and potential clinical applications.**

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

**PubMedID**

[30872534](#)

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