

Product Name: PSEM 308 hydrochloride

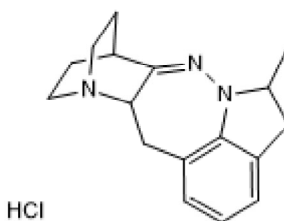
Catalog No.: 6425

Batch No.: 2

IUPAC Name: 5-Methyl-5,8,9,10,11a,12-hexahydro-4*H*-8,11-ethanopyrido[3',2':3,4]diazepino[6,7,1-*h*]indole hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₁N₃.HCl.
Batch Molecular Weight: 303.83
Physical Appearance: Off-white solid
Solubility: DMSO to 20 mM
 ethanol to 20 mM with gentle warming
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	67.2	7.3	13.83	11.67
Found	66.72	7.34	13.74	11.72

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

PSEM 308 hydrochloride is a PSAM (pharmacologically selective actuator module) agonist. Activates PSAM^{L141F}-GlyR chimeric ion channels. Inhibits activity of neurons expressing PSAM^{L141F}-GlyR in vivo and activates locus coeruleus noradrenergic neurons expressing PSAM^{L141F,Y115F}-5-HT₃ ion channels. Recommended concentration for use in mice is 5 mg/kg or lower. Plasmid vectors for the transfection of cells with PSAM^{L141F}-GlyR and PSAM^{L141F,Y115F}-5-HT₃ are available from Addgene. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

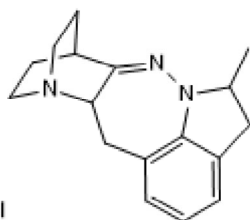
Batch Molecular Formula: C₁₇H₂₁N₃.HCl.

Batch Molecular Weight: 303.83

Physical Appearance: Off-white solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Hirschberg et al (2017) Functional dichotomy in spinal- vs prefrontal-projecting locus coeruleus modules splits descending noradrenergic analgesia from ascending aversion and anxiety in rats. *Elife* **6** e29808. PMID: 29027903.

Satoh et al (2016) Context-dependent gait choice elicited by EphA4 mutation in Lbx1 spinal interneurons. *Neuron* **89** 1046. PMID: 26924434.

Atasoy et al (2012) Deconstruction of a neural circuit for hunger. *Nature* **488** 172. PMID: 22801496 .

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 mM

ethanol to 20 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

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.

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