

**Product Name:** PSEM 89S

**Catalog No.:** 6426

**Batch No.:** 5

CAS Number: 1336913-03-1

IUPAC Name: *N*-(3*S*)-1-Azabicyclo[2.2.2]oct-3-yl-2,5-dimethoxybenzamide trifluoroacetate

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>16</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>.CF<sub>3</sub>CO<sub>2</sub>H.¼H<sub>2</sub>O

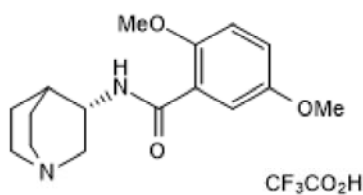
**Batch Molecular Weight:** 408.88

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM  
water to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 100% purity

**Chiral HPLC:** Shows 99.3% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	52.87	5.79	6.85
Found	52.98	5.71	6.81

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

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**Description:**

PSAM<sup>L141F</sup>-GlyR and PSAM<sup>L141F,Y115F</sup>-5-HT<sub>3</sub> chimeric ion channel agonist (EC<sub>50</sub> values are 3.4 and 2.2 μM, respectively). Activates cortical neurons expressing PSAM<sup>L141F,Y115F</sup>-5-HT<sub>3</sub> chimeric ion channels and inhibits activity of neurons expressing PSAM<sup>L141F</sup>-GlyR in vitro. Silences hypothalamic AGRP neurons transfected with PSAM<sup>L141F</sup>-GlyR chimeric ion channels in mice in vivo, leading to suppression of feeding. Brain penetrant. Plasmid vectors for the transfection of cells with PSAM<sup>L141F</sup>-GlyR and PSAM<sup>L141F,Y115F</sup>-5-HT<sub>3</sub> are available from Addgene. Please see product datasheet on www.tocris.com for full description.

**Physical and Chemical Properties:**

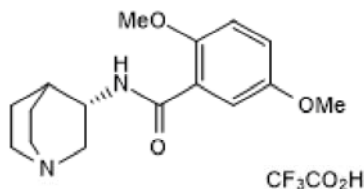
Batch Molecular Formula: C<sub>16</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>.CF<sub>3</sub>CO<sub>2</sub>H.¼H<sub>2</sub>O

Batch Molecular Weight: 408.88

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

water to 100 mM

**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. Our standard recommendations are:

**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.

**References:**

**Cerritelli et al** (2016) Activation of brainstem pro-opiomelanocortin neurons produces opioidergic analgesia, bradycardia and bradypnoea. *PLoS One* **11** e0153187. PMID: 27077912.

**Magnus et al** (2011) Chemical and genetic engineering of selective ion channel-ligand interactions. *Science* **333** 1292. PMID: 21885782 .

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