

Certificate of Analysis

Print Date: May 26th 2018

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Product Name: PEPA Catalog No.: 2929 Batch No.: 1

CAS Number: 141286-78-4

IUPAC Name: 2-[2,6-Difluoro-4-[[2-[(phenylsulfonyl)amino]ethyl]thio]phenoxy]acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{16}F_2N_2O_4S_2$

Batch Molecular Weight: 402.44 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM

ethanol to 25 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.28$ (Ethyl acetate)

HPLC: Shows >99% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Corbon Hydrog

Carbon Hydrogen Nitrogen

Theoretical 47.75 4.01 6.96 Found 47.71 3.98 6.78

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Product Information

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IUPAC Name: 2-[2,6-Difluoro-4-[[2-[(phenylsulfonyl)amino]ethyl]thio]phenoxy]acetamide

Description:

Novel allosteric potentiator of AMPA receptor desensitization. Slows the rate of onset of desensitization and potentiates steady-state equilibrium currents induced by glutamate with subunit (GluA3/4 > GluA1) and splice variant (flop > flip) selectivity. Ameliorates post-ischemic memory impairment in rats following i.v. administration.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₁₆F₂N₂O₄S₂

Batch Molecular Weight: 402.44 Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM ethanol to 25 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.

References:

Sekiguchi 12145103.

(2002) A desensitization-selective potentiator of AMPA-type glutamate receptors. Br.J.Pharmacol.

1033. PMID:

Sekiguchi

(2001) The AMPA receptor allosteric potentiator PEPA ameliorates post-ischemic memory impairment. Neuroreport

2974.

Sekiguchi (1997) A novel allosteric potentiator of AMPA receptors: 4-[2-(phenylsulfonylamino)ethylthio]-2,6-difluorophenoxyacetamide. J.Neurosci. 5760. PMID: 9221774.

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