

# PEPA

**Catalog No: tcsc3633**



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

141286-78-4

**Formula:**

$C_{16}H_{16}F_2N_2O_4S_2$

**Pathway:**

Membrane Transporter/Ion Channel;Neuronal Signaling

**Target:**

iGluR;iGluR

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Observed Molecular Weight:**

402.44

## Product Description

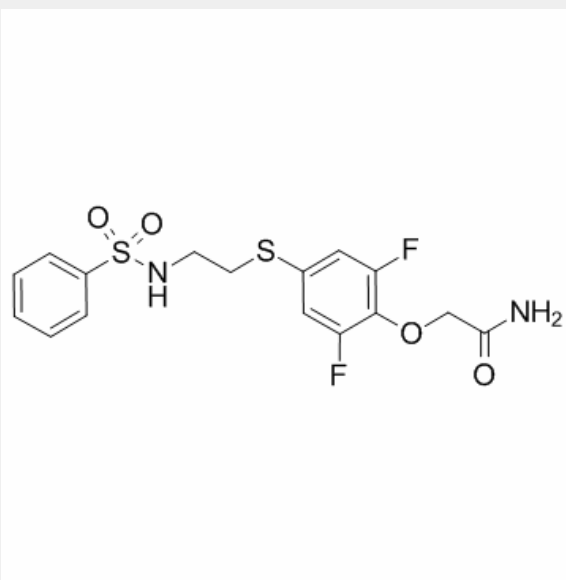
PEPA is an allosteric modulator of AMPA receptors; binds to the GluA2o and GluA3o LBDs and can be utilized as an indicator of AMPA receptor heterogeneity.

IC50 value:

Target: AMPAR modulator

in vitro: PEPA dose-dependently potentiated AMPA-induced increase of  $[Ca^{2+}]_i$ . In 90% (72 out of 80) of the cells in which cyclothiazide acts, PEPA potentiated the increased  $[Ca^{2+}]_i$  induced by AMPA with pronounced cell-to-cell variation in rat hippocampal cultures [1]. PEPA bound to the binding domains of the GluA2 and GluA3 flop isoforms of AMPA receptors [2]. coapplication of AMPA with PEPA protected hippocampal CA1 neurons from brain ischemia-induced death. Coapplication of AMPA with PEPA could prevent downregulated expression of GluR2 subunit caused by ischemia and increase BDNF expression via Lyn-ERK1/2-CREB signaling [4].

in vivo: PEPA (3, 10, 30mg/kg body weight) or vehicle was intraperitoneally administered into stressed mice once before the first extinction session. The significant decrease of the freezing response in the extinction sessions was only seen in the 30mg/kg PEPA-administered stressed mice, compared with vehicle-administered stressed mice [3].



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