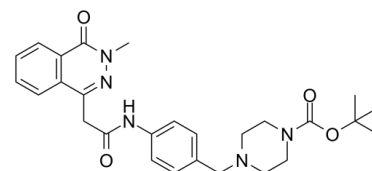


Data Sheet

Product Name:	PH-002
Cat. No.:	CS-0064694
CAS No.:	1311174-68-1
Molecular Formula:	C ₂₇ H ₃₃ N ₅ O ₄
Molecular Weight:	491.58
Target:	Others
Pathway:	Others
Solubility:	DMSO : ≥ 75 mg/mL (152.57 mM)



BIOLOGICAL ACTIVITY:

PH-002 is an inhibitor of **apolipoprotein (apo) E4** intramolecular domain interaction in neuronal cells that could rescue impairments of mitochondrial motility and neurite outgrowth. IC₅₀ & Target: 116 nM (Apo E4 in FRET)^[1]. **In Vitro:** PH-002 is an inhibitor of apolipoprotein (apo) E4 intramolecular domain interaction in neuronal cells, with an IC₅₀ of 116 nM in FRET^[1]. **In Vivo:** PH-002 is also shown to increase COX1 levels in primary neurons from NSE-apoE4 transgenic mouse cortex and hippocampus. After 4 days of treatment with PH-002 (200 nM), COX1 levels are increased by ~60%. PH-002 (100 nM) increases dendritic spine development in primary neurons from NSE-apoE4 transgenic mice to levels comparable with those in NSE-apoE3 primary neurons (apoE3-expressing primary neurons treated with PH-002 gave results identical to untreated primary neurons)^[2].

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: ^[1]Neuro-2a cells stably expressing apoE3 or apoE4 are seeded at 7500-8000 cells/well on PLLysine-coated 24-well plates containing Opti-MEM with either 0.03% DMSO (control) or DMSO plus compound **PH-002 (100 nM)**^[1].

References:

[1]. Brodbeck J, et al. Structure-dependent impairment of intracellular apolipoprotein E4 trafficking and its detrimental effects are rescued by small-molecule structure correctors. J Biol Chem. 2011 May 13;286(19):17217-26.

[2]. Chen HK, et al. Small molecule structure correctors abolish detrimental effects of apolipoprotein E4 in cultured neurons. J Biol Chem. 2012 Feb 17;287(8):5253-66.

CAIndexNames:

1-Piperazinecarboxylic acid, 4-[[4-[[2-(3,4-dihydro-3-methyl-4-oxo-1-phthalazinyl)acetyl]amino]phenyl]methyl]-, 1,1-dimethylethyl ester

SMILES:

CC(C)OC(=O)N1CCN(CC2=CC=C(NC(CC3=NN(C)C(C4=C3C=CC=C4)=O)=O)C=C2)CC1OC(C)C

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA