Data Sheet (Cat.No.T61522)

TargetMol

Nrf2/HO-1 activator 2

Chemical Properties

CAS No. :

Formula: C20H16F2O5

Molecular Weight: 374.33

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Nrf2/HO-1 activator 2 (compound 13m), a difluoro-substituted derivative, is a highly potent activator of Nrf2/HO-1 with substantial neuroprotective and antioxidant properties. It functions by activating the Nrf2/HO-1 pathway through the phosphorylation of ERK1/2, JNK, or Akt in PC12 cells and is useful in investigating Parkinson's disease (PD) [1].
Targets(IC50)	ERK,Others,Reactive Oxygen Species,Akt,Nrf2,JNK
In vitro	Nrf2/HO-1 activator 2, at concentrations ranging from 0.1-30 μM for 24 hours, offers protective effects to PC12 cells against 6-OHDA- and Rotenone-induced toxicity and cell death. At 1-100 μM for 11 hours, it inhibits reactive oxygen species production and partially reduces lipid peroxidation in rat brain homogenates, decreasing lipid peroxide production by 28.8% at 100 μM. Additionally, it promotes up-regulation of heme oxygenase-1 (HO-1) and Nrf2 expression and activates Nrf2/HO-1 signaling pathways through phosphorylation of ERK1/2, JNK, and Akt in PC12 cells. Cell viability assays demonstrate its neuroprotective effects, rescuing cells from rotenone-induced damage and improving cell viability up to 79.9% at 30 μM. Western blot analysis further confirms dose-dependent upregulation of HO-1 levels and enhanced nuclear translocation of Nrf2, as well as inducing phosphorylation of ERK1/2, JNK, and Akt at 10 μM.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6714 mL	13.3572 mL	26.7144 mL
5 mM	0.5343 mL	2.6714 mL	5.3429 mL
10 mM	0.2671 mL	1.3357 mL	2.6714 mL
50 mM	0.0534 mL	0.2671 mL	0.5343 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481