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RGFP966

Catalog No: tcsc1628

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1357389-11-7

Formula:
$C_{21}H_{19}FN_4O$

Pathway:
Epigenetics;Cell Cycle/DNA Damage

Target:
HDAC;HDAC

Purity / Grade:
>98%

Solubility:
H2O :

Observed Molecular Weight:
362.4

Product Description

RGFP966 is a highly selective **HDAC3** inhibitor with an **IC_{50}** of 80 nM and shows no inhibition to other HDACs at concentrations up to

15 μM.

IC50 & Target: IC50: 80 nM (HDAC3)[1]

In Vitro: RGFP966 potently and selectively inhibits HDAC 3 with IC_{50} of 0.21 μM in RAW 264.7 macrophages, while HDACs 1 (IC_{50} =5.6 μM), 2 (9.7 μM) and 8 (>100 μM), indicating a good level of selectivity for HDAC 3. The mRNA levels of HDACs 1, 2 and 3 are not significantly affected by RGFP966 in RAW 264.7 macrophages, whereas the HDAC 1 and HDAC 2 protein levels are slightly, though significantly, reduced upon RGFP966 treatment. Moreover, RGFP966 significantly reduced the transcriptional activity of NF-κB p65, whereas NF-κB p65 acetylation and localization remain unaltered[2].

In Vivo: RGFP966 (10 and 25 mg/kg) treatment significantly improves body weight, rotarod performance and several measures of motor function in the open field locomoter test[3]. RGFP966 at a 10 mg/kg dose penetrates the blood-brain barrier into rat auditory cortex with typical pharmacokinetics, which together establish feasibility for the modulation of A1 plasticity due to action in the auditory cortex[4].