Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Cutamesine dihydrochloride

Catalog No: tcsc3288

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
165377-44-6

Formula:
$C_{23}H_{34}Cl_2N_2O_2$

Pathway:
GPCR/G Protein

Target:
Sigma Receptor

Purity / Grade:
>98%

Solubility:
DMSO : 30 mg/mL (67.96 mM; Need ultrasonic and warming)

Alternative Names:
SA4503 (dihydrochloride); AGY94806 dihydrochloride

Observed Molecular Weight:
441.43

Product Description

Cutamesine dihydrochloride (SA4503 dihydrochloride) is a potent **Sigma 1** receptor agonist with an **IC_{50}** of 17.4 nM in guinea pig brain membranes.

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IC50 & Target: IC50: 17.4 nM (σ1receptor, guinea pig brain membranes)[1]

In Vitro: The sigma receptor might be involved in several diseases in the central nervous system. Cutamesine, a potent σ1receptor agonist, has 103-fold higher affinity for σ1 (IC_{50}=17.4 nM) than σ2 (IC_{50}=1,784 nM) sites in guinea pig brain membranes. Cutamesine is 14-fold selective for σ1 (K_i=4.6 nM) over σ2 (K_i=63.1 nM) sites in guinea pig brain homogenates[1]. Cutamesine protects motor neuron NSC34 cells against superoxide dismutase 1 and serum free neurotoxicity. It upregulates the phosphorylation levels of Akt and extracellular signal-regulated kinase (ERK) 1/2[2]. Cutamesine reduces the activation of the MAPK/ERK pathway and down-regulated the ionotropic glutamate receptor, GluR1[3].

In Vivo: Cutamesine extends the survival time in the SOD1G93A mice[2].