

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

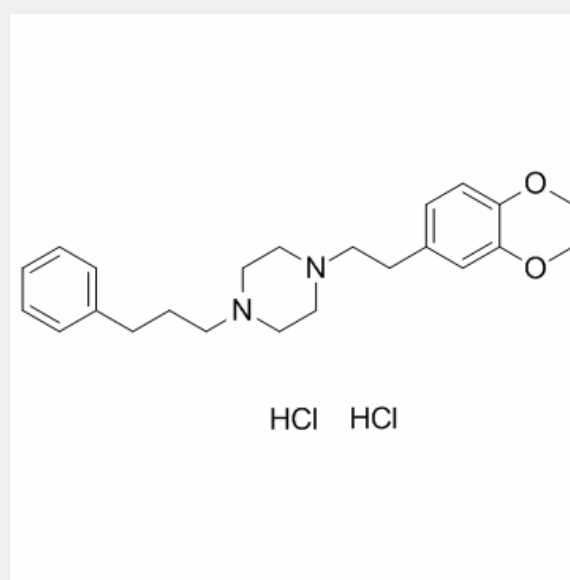
Product Description

Cutamesine dihydrochloride (SA4503 dihydrochloride) is a potent **Sigma 1** receptor agonist with an **IC₅₀** of 17.4 nM in guinea pig brain membranes.

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

In Vitro: The sigma receptor might be involved in several diseases in the central nervous system. Cutamesine, a potent σ 1receptor agonist, has 103-fold higher affinity for σ 1 (IC_{50} =17.4 nM) than σ 2 (IC_{50} =1,784 nM) sites in guinea pig brain membranes. Cutamesine is 14-fold selective for σ 1 (K_i =4.6 nM) over σ 2 (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].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!