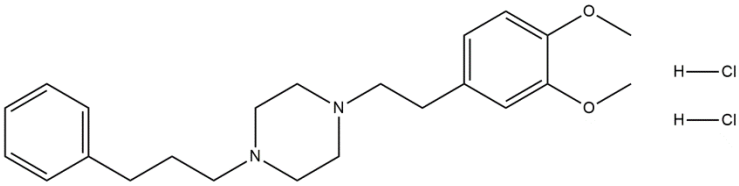
SA4503 dihydrochloride

06/20

ALTERNATE NAMES: Cutamesine dihydrochloride; 1-[2-(3,4-dimethoxyphenyl)ethyl]-4-(3-phenylpropyl)piperazine;dihydrochloride; 1-(3,4-Dimethoxyphenethyl)-4-(3-phenylpropyl)piperazine 2HCl; AGY94806 dihydrochloride

CATALOG #:
B3046-5 5 mg
B3046-25 25 mg

STRUCTURE:



MOLECULAR FORMULA: $C_{23}H_{34}Cl_2N_2O_2$

MOLECULAR WEIGHT: 441.43

CAS NUMBER: 165377-44-6

APPEARANCE: White to Off-White Solid

PURITY: ≥98%

SOLUBILITY:
~5 mg/ml in PBS, pH 7.2
~2 mg/ml in water

DESCRIPTION: SA4503 is a potent sigma-1 (σ1 receptor) agonist. It shows 100 fold higher affinity for σ1 than σ2 receptor with IC_{50} values of 17.4 nM and 1784 nM against 200 nM (+)-pentazocine for binding σ receptor in guinea pig brain membranes. It shows K_i values of 4.6 nM and 63.1 nM for σ1 and σ2 sites respectively in guinea pig brain homogenates. It enhances recovery of lost sensorimotor function in a rat model of stroke. Based on viral screens, modulators of sigma receptor are predicted to show activity against SARS-CoV-2.

STORAGE TEMPERATURE: -20ºC. Protect from air. Store under desiccating conditions.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Lever, J.R., Gustafson, J.L., Zu, R., et al. σ1 and σ2 receptor binding affinity and selectivity of SA4503 and fluoroethyl SA4503. Synapse 59(6), 350-358 (2006).
2. Ruscher, K., Shamloo, M., Rickhag, M., et al. The sigma-1 Receptor Enhances Brain Plasticity and Functional Recovery After Experimental Stroke. Brain. 134(Pt 3):732-746 (2011).

RELATED PRODUCTS:

Remdesivir (Cat. No. B2997)
Olanzapine (Cat. No. B2677)
Valbenazine (Cat. No. B2954)
AMG-517 (Cat. No. B3019)
Ditolylguanidine (Cat. No. B3044)

DISCLAIMER: ***FOR RESEARCH USE ONLY! Not to be used on humans.***