

Product Name: SAG dihydrochloride

Catalog No.: 6390

Batch No.: 2

CAS Number: 2702366-44-5

IUPAC Name: 3-Chloro-*N*-[trans-4-(methylamino)cyclohexyl]-*N*-[[3-(4-pyridinyl)phenyl]methyl]benzo[*b*]thiophene-2-carboxamide dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₈H₂₈ClN₃OS.2HCl.¾H₂O

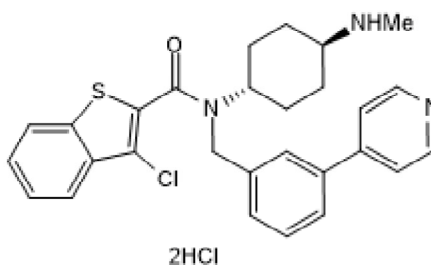
Batch Molecular Weight: 576.49

Physical Appearance: Beige solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.34	5.51	7.29
Found	58.19	5.5	7.28

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name: SAG dihydrochloride

Catalog No.: 6390

2

CAS Number: 2702366-44-5

IUPAC Name: 3-Chloro-*N*-[trans-4-(methylamino)cyclohexyl]-*N*-[[3-(4-pyridinyl)phenyl]methyl]benzo[*b*]thiophene-2-carboxamide dihydrochloride

Description:

SAG dihydrochloride is a water-soluble dihydrochloride salt of SAG (Cat. No. 4366). SAG is a potent Smoothed (Smo) receptor agonist (K_d = 59 nM); antagonizes Cyclopamine (Cat. No. 1623) action at the Smo receptor. SAG potently activates the Hedgehog signaling pathway in Shh-light 2 cells (EC₅₀ ~ 3 nM) and induces pathway activation independently of Ptch proteins. SAG is a putative inhibitor of a cellular component required for Hedgehog signaling and also enhances neuronal differentiation of iPSCs into dopaminergic neurons. The compound can be used in protocols for the chemical reprogramming of somatic cells to iPSCs. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

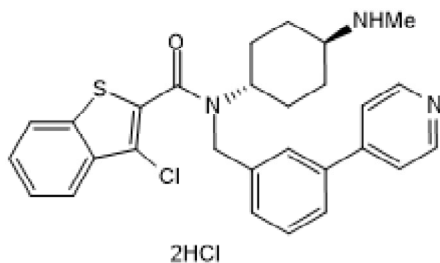
Batch Molecular Formula: C₂₈H₂₈ClN₃OS.2HCl.¾H₂O

Batch Molecular Weight: 576.49

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Guan et al (2022) Chemical reprogramming of human somatic cells to pluripotent stem cells. *Nature* **605** 325. PMID: 35418683.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956