Certificate of Analysis

Product Name: **GSK 1702934A** **Catalog No.: 6508** **Batch No.: 1**

CAS Number: 924377-85-5

IUPAC Name: 1,3-Dihydro-1-[1-[(5,6,7,8-tetrahydro-4*H*-cyclohepta[b]thien-2-yl)carbonyl]-4-piperidinyl]-2*H*-benzimidazol-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{25}N_3O_2S$

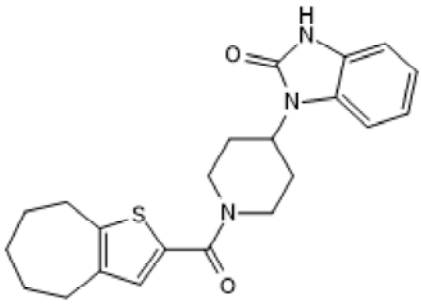
Batch Molecular Weight: 395.52

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.81	6.37	10.62
Found	66.43	6.42	10.73

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Product Information

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Description:

Potent and selective TRPC3/6 activator (EC_{50} = 80 and 440 nM for TRPC3 and 6, respectively). Exhibits no activity at TRPV4, TRPA1, M_1, M_4, $Ca_V1.2$, hERG, $Na_V1.5$, or CXCR5 receptors at concentrations <10 µmol/L. Induces TRPC3/6-currents in HEK293 cells transduced with recombinant human TRPC3/6. Directly activates TRPC channels through by-passing phospholipase-C signaling. Also induces calcium signals in HEK-TRPC6 cells (pEC_{50} = 6.6).

Physical and Chemical Properties:

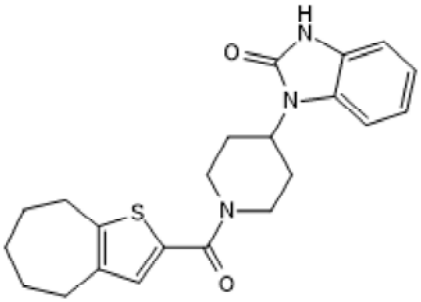
Batch Molecular Formula: $C_{22}H_{25}N_3O_2S$

Batch Molecular Weight: 395.52

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 mM

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. Our standard recommendations are:

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:

Guedes de la Cruz *et al* (2017) Intensified microwave-assisted *N*-acylation procedure - Synthesis and activity evaluation of TRPC3 channel agonists with a 1,3-dihydro-2*H*-benzo[*d*]imidazol-2-one core. Synlett. ***28*** 695. PMID: 28413263.

Wajdner *et al* (2017) Orai and TRPC channel characterization in FceRI-mediated calcium signaling and mediator secretion in human mast cells. Physiol.Rep. ***5*** e13166. PMID: 28292887.

Doleschal *et al* (2015) TRPC3 contributes to regulation of cardiac contractility and arrhythmogenesis by dynamic interaction with NCX1. Cardiovasc.Res. ***106*** 163. PMID: 25631581.