Sphingosine Kinase Inhibitor 2
Item No. 10009222

CAS Registry No.: 312636-16-1
Synonyms: SKI II, SPHK I2
Formal Name: 4-[(4-(4-chlorophenyl)-2-thiazolyl)amino]-phenol
MF: C_{15}H_{11}ClN_2O_S
FW: 302.8
Purity: ≥95%
UV/Vis.: \( \lambda_{\text{max}} = 259, 282 \text{ nm} \)
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

For long term storage, we suggest that sphingosine kinase inhibitor 2 (SPHK I2) be stored as supplied at -20°C. It should be stable for at least two years.

SPHK I2 is supplied as a crystalline solid. A stock solution may be made by dissolving the SPHK I2 in an organic solvent purged with an inert gas. SPHK I2 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of SPHK I2 in these solvents is approximately 20 mg/ml.

SPHK I2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SPHK I2 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SPHK I2 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Sphingosine kinase inhibitor 2 is an inhibitor of sphingosine kinase 1 (SPHK1) with an IC_{50} value of 0.5 \( \mu \)M for non-ATP-competitive inhibition of human recombinant SPHK1. It is selective for SPHK1 over ERK2, PI3K, and PKCa at concentrations up to 60 \( \mu \)M. Sphingosine kinase inhibitor 2 inhibits proliferation of several cancer cell lines, including T-24, MCF-7, NCI/ADR, and MCF-7/VP (IC_{50}s = 0.9-4.6 \( \mu \)M).

Reference