Product Data Sheet

Chemical Properties

Product Name: ABC294640
Cas No.: 915385-81-8
M.Wt: 380.91
Formula: C23H25ClN2O

Chemical Name: (7S)-3-(4-chlorophenyl)-N-(pyridin-4-ylmethyl)adamantane-1-carboxamide
Canonical SMILES: C1C2CC3(CC1CC(C2)(C3)C(=O)NCC4=CC=NC=C4)C5=CC=C(C=C5)Cl
Solubility: Soluble in DMSO
Storage: Store at -20°C
General tips: For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets: Chromatin/Epigenetics
Pathways: Sphingosine Kinase-2
Description:

ABC294640 is a selective and competitive inhibitor of sphingosine kinase 2 (SK2) with IC50 value of 60μM [1].

ABC294640 is a competitive inhibitor of SK2. It shows IC50 value of about 60μM against recombinant human SK2. In the kinetic assay, ABC294640 competes with sphingosine and exerts a Ki value of 9.8μM. Because of its targeting of the sphingosine binding site of SK2, ABC294640
shows no inhibition activity against other 20 kinases. In MDA-MB-231 cells, ABC294640 prevents S1P production with IC50 value of 26μM. Moreover, ABC294640 has anti-proliferation and anti-migration efficacies in tumor cells. It suppresses cell proliferation of a variety of tumor cell lines such as 1025LU, A-498, Caco-2 and HT-29. The IC50 values are ranged from 6μM to 48μM. Furthermore, administration of ABC294640 inhibits tumor growth in the immunocompetent BALB/c mice bearing mammary adenocarcinoma xenografts. Besides that, ABC294640 is also found to have greater anti-proliferation effects in ER-positive than ER-negative breast cancer cells. The effect of E2 signaling caused by ABC294640 is expected to be a therapeutic in endocrine-related diseases [1, 2].

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.