Product Data Sheet

Chemical Properties

Product Name: GDC-0349
Cas No.: 1207360-89-1
M.Wt: 452.55
Formula: C24H32N6O3

Chemical Name: 1-ethyl-3-[4-[4-[(3S)-3-methylmorpholin-4-yl]-7-(oxetan-3-yl)-6,8-dihydro-5H-pyrido[3,4-d]pyrimidin-2-yl]phenyl]urea

Canonical SMILES: CCNC(=O)NC1=CC=C(C=C1)C2=NC3=C(CCN(C3C4OC4)C(=N2)N5CCOCC5C

Solubility: ≥4.55mg/mL 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: PI3K/Akt/mTOR Signaling
Pathways: mTOR

Description:
GDC-0349 is a potent, selective, ATP-competitive inhibitor of (Mammalian target of rapamycin) mTOR with Ki value of 3.8nM [1].
GDC-0349 is a remarkably selective mTOR inhibitor, with less than 25% inhibition of 266 kinases, including all isoforms of PI3K. GDC-0349 inhibited mTOR downstream markers, involving phospho-Akt(s473) and phospho-4EBP1 in an in vivo PK/PD study in mouse, consistent with an
inhibition of mTORC1/mTORC2 complexes [1].
GDC-0349 inhibited tumor growth in a dose-dependent manner when dosed orally once daily in athymic mice in a MCF-7-neo/Her2 tumor xenograft model (PI3K mutation). GDC-0349 was also efficacious in other xenograft models, including PC3 (PTEN null) and 786-0 (VHL mutant). However, GDC-0349 showed only modest tumor growth delay in the A549 mouse xenograft model (KRas mutant, LKB1 deficient) [1].

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.