Product Data Sheet

Chemical Properties

Product Name: LY2584702
Cas No.: 1082949-67-4
M.Wt: 445.42
Formula: C21H19F4N7

Chemical Name: 4-(4-(4-fluoro-3-(trifluoromethyl)phenyl)-1-methyl-1H-imidazol-2-yl)piperidin-1-yl)-2H-pyrazolo[3,4-d]pyrimidine

Canonical SMILES: CN(C(C1CCN(C2=NC=NC3=NNC=C32)CC1)=N4)C=C4C5=CC(C(F)(F)F)=C(F)C=C5

Solubility: >22.3mg/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: S6 Kinase

Description:
LY2584702 is a potent and selective inhibitor of p70 S6 kinase with IC50 value of 4 nM [1]. P70 S6 kinase (p70S6K) is a serine/threonine protein kinase that acts downstream of the phosphatidylinositol-3-kinase (PI3K)/Akt/mTOR signalling pathway. p70S6K phosphorylates the eukaryotic initiation factor 4B (eIF4B), a regulator of protein synthesis, and phosphorylates and
activates ribosomal protein S6 (S6), a component of the 40S ribosomal subunit [1] [2]. LY2584702 is an oral and selective ATP competitive p70S6K inhibitor. In HCT116 colon cancer cells, LY2584702 inhibits phosphorylation of S6 (pS6) with IC50 value of 0.1-0.24 μM [1]. In the HCT116 colon carcinoma xenograft model, LY2584702 significantly inhibited tumour growth with threshold minimum effective dose 50% (TMED50) and TMED90 of 2.3 mg/kg and 10 mg/kg, respectively. In both HCT116 colon carcinoma and U87MG glioblastoma xenograft models, LY2584702 at levels of 2.5 mg/kg twice daily (BID) and 12.5 mg/kg BID exhibited significant efficacy. Treatment patients with advanced solid tumours with LY2584702 orally on a 28-day cycle, the maximum tolerated dose (MTD) was 75 mg BID (twice-daily) or 100 mg QD (once-daily) [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. Shortterm 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.