Product Data Sheet

Chemical Properties

Product Name: TAK-715
Cas No.: 303162-79-0
M.Wt: 399.52
Formula: C24H21N3OS
Synonyms: N/A
Chemical Name: N-[4-[2-ethyl-4-(3-methylphenyl)-1,3-thiazol-5-yl]pyridin-2-yl]benzamide
Canonical SMILES: CCC1=NC(I(C1)C2=CC(=NC(C2)NC(=O)C3=CC=CC=C3)C4=CC(=CC=C4)C
Solubility: $\geq 40\text{mg/mL}$ 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: MAPK Signaling
Pathways: p38
Description: TAK-715 is a selective inhibitor of p38 MAPK with IC50 value of 7.1 nM [1]. p38 mitogen-activated protein (MAP) kinases (p38 MAPKs) are a class of mitogen-activated protein kinases and play an important role in controlling cellular responses to cytokines and stress. Four p38 MAPKs contain members, p38-α (MAPK14), p38-β (MAPK11), p38-γ (MAPK12/ERK6), and p38-δ (MAPK13/SAPK4), have been identified. Abnormal expression of p38...
MAPKs are correlated with a variety of chronic inflammatory diseases and their inhibitors are regarded as promising targets in clinical [1] [2]. TAK-715 is a potent p38 MAPK inhibitor and has a different selectivity with the reported p38 MAPK inhibitor VX-745. When tested with human monocytic THP-1 cells, administration of TAK-715 exhibited inhibition on p38MAPKα with IC50 value of 7.1 nM [1]. In HEK293T, U2OS, and F9 cells, TAK-715 was used to inhibit p38 MAPK activity and concluded that p38 MAPK had no function in Wnt/β-catenin signaling pathway [2]. 

In adjuvant-induced rheumatoid arthritis rat model, administration of TAK-715 at dose of 10 mg/kg significantly decreased LPS-induced stimulated release of TNF-α (87.6%) by inhibiting p38 MAPK activity [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.