Product Data Sheet

Chemical Properties

Product Name: BAY-X 1005
Cas No.: 128253-31-6
M.Wt: 361.43
Formula: C23H23NO3

Chemical Name: (S)-2-cyclopentyl-2-(4-(quinolin-2-ylmethoxy)phenyl)acetic acid
Canonical SMILES: OC([\text{\text{C}}\text{\text{H}}])(C(C=\text{\text{C}})=\text{\text{C}}1\text{OCC2=NC}=\text{\text{C}}=\text{\text{CC}}=\text{\text{CC}}=\text{\text{C}}3\text{C}=\text{\text{C}}2)C4\text{CCCC}4)=\text{\text{O}}

Solubility: <36.14mg/ml in DMSO
Storage: Store at RT
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: Immunology/Inflammation
Pathways: 5-Lipoxygenase

Description:
BAY-X 1005 is a selective inhibitor of 5-lipoxygenase-activating protein [1]. 5-lipoxygenase-activating protein (FLAP) is an integral protein and plays an important role in the activation of 5-lipoxygenase (5-LOX) and the synthesis of leukotrienes, which regulating immune responses. BAY-X 1005 is a selective inhibitor of leukotriene synthesis. BAY X 1005 binds to FLAP and inhibits 5-LOX translocation from the cytosol to membranes [1]. BAY-X1005 inhibited LTB4 synthesis with IC50 values of 0.22, 0.026 and 0.039 μM for isolated PMNL of human, rat and mouse respectively.
and inhibited LTC4 synthesis with IC50 value of 0.021 μM in mouse macrophages [2].
In the arachidonate-induced mouse ear inflammation test, BAY-X 1005 inhibited myeloperoxidase activity and edema formation with ED50 values of 7.9 and 48.7, respectively [2].
Also, BAY-X 1005 (100 mg/kg) reduced platelet-activating factor-induced death of mice by 51% in a dose-dependent way. In animal models, BAY-X 1005 inhibited the synthesis of LTB4 and LTC4, which reduced edema formation, the vascular phenomena of inflammation and leukocyte immigration [3].

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.