Product Data Sheet

Chemical Properties

Product Name: BM 567
Cas No.: 284464-77-3
M.Wt: 412.5
Formula: C18H28N4O5S

Chemical Name: 2-(cyclohexylamino)-5-nitro-N-[(pentylamino)carbonyl]-benzenesulfonamide
Canonical SMILES: CCCCCNC(=O)NS(=O)(=O)c1cc(ccc1NC1CCCCC1)[N](=O)O

Solubility: ≤10mg/ml in ethanol; 20mg/ml in DMSO; 20mg/ml in dimethyl formamide

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: GPCR/G protein
Pathways: Prostaglandin Receptor

Description:
IC50: 1.1 nM for TXA2 receptor antagonism

BM 567 is acting as an inhibitor of thromboxane A2 (TXA2) synthase and an antagonist of the TP receptor.

Thromboxane A2 (TXA2), a potent thrombogenic and vasoconstrictor eicosanoid, is produced in
large quantities by activated platelets. TXA2 has been reported as a causal factor in the onset of stroke and myocardial infarction.

In vitro: BM 567 was identified as a dual acting antithrombogenic agent, acting as an inhibitor of thromboxane A2 (TXA2) synthase and an antagonist of the TP receptor, the G protein-coupled receptor mediating TXA2 activity in platelets and vascular smooth muscle. BM 567 antagonized the vascular smooth muscle TP receptor with an IC50 value of 1.1 nM. BM 567 was also able to inhibit platelet TX synthase with an IC50 value of 12 nM. In addition, by comparing crystallographic and electronic properties of BM567 and terbogrel, two compounds with dual action (TXRA and TXSI), two essential anchoring identified: sulfonyl and nitro group for BM567 and carboxylate and pyridine nitrogen for terbogrel [1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

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.