Product Data Sheet

Chemical Properties

Product Name: A-71623

Cas No.: 130408-77-4

M.Wt: 840.97

Formula: C44H56N8O9

Chemical Name: \((6S,9S,12S)\)-6-\(((1H\text{-}\text{indol-3-yl})\text{methyl})\)-12-\(((S)\)-1-\text{amino}\)-1-\text{oxo}\)-3-\text{phenylpropan-2-yl}\)(\text{methyl carbamoyl})-2,2-dimethyl-4,7,10-trioxo-9-(4-(3-(o-tolyl)ureido)butyl)-3-oxa-5,8,11-triazatetrade
can-14-oic acid

Canonical SMILES: 

Solubility: Soluble to 1 mg/ml in 20mM PBS buffer

Storage: Desiccate 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: CCK1 Receptors

Description:

A-71623 is a selective agonist of CCKA receptor with an IC50 value of 3.7 nM in guinea pig pancreas [1, 2].
CCKA receptors belong to a subtype of cholecystokinin (CCK) receptors in the brain. CCK is a type
of neuropeptide present throughout the central nervous system. CCK can act as a neurotransmitter in both normal and abnormal brain. CCK receptors exist in two forms in the brain. Another subtype of CCK receptors is CCKB subtype [1].

In NCI-H345 cells possessing CCKB/gastrin receptors, A-71623 was weak and behaved as a partial agonist in calcium studies [2]. A-71623 had very low affinity to CCK binding sites in C6 cells with an IC50 value of 1236 ± 81 nM [3]. It is hard to find the CCKA response result of the application of A-71623 in cells.

In radioligand binding assays, A-71623 showed IC50 values of 3.7 nM for CCKA in guinea pig pancreas and 4500 nM for CCKB in cerebral cortex. Data showed that A-71623 was an agonist in stimulating the release of pancreatic amylase, and this stimulatory effect was potently inhibited by L-364,718, a CCKA antagonist. Data showed that A-71623 acted as a full agonist in stimulating the breakdown of phosphoinositide in pancreas. In the ileum, A-71623 was also a potent agonist in stimulating CCKA receptors. In guinea pig gastric glands, the affinity of A-71623 for the CCK-B/gastrin receptor was 11 µM. This result demonstrated that A-71623 should be a potent and selective agonist at CCKA receptors [2].

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.