Chemical Properties

Product Name: AL 8810
Cas No.: 246246-19-5
M.Wt: 402.50
Formula: C24H31FO4

Chemical Name: (Z)-7-((1R,2R,3S,5S)-2-((R,E)-3-(2,3-dihydro-1H-inden-2-yl)-3-hydroxy prop-1-en-1-yl)-3-fluoro-5-hydroxycyclopentyl)hept-5-enoic acid

Canonical SMILES: F[C@H]1C[C@H](O)[C@H](C/C=C\CCC(O)=O)[C@H]1/C=C/[C@H](O)C2CC3=CC=CC=C3C2

Solubility: Soluble 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: Prostaglandin Receptor
Pathways: GPCR/G protein >> Prostaglandin Receptor

Description:
AL-8810 is a novel prostaglandin F2α analog that acts as a selective antagonist of prostaglandin F2α (FP) receptor.
Prostaglandin receptors are a group of g-protein coupled receptor that exhibited a variety of functions in regulation of blood pressure and renal function; smooth muscle contraction;
inhibition of plate aggregation; immune response etc.

AL-8810 has an EC50 of 261 ± 44 nM against FP receptor in the A7r5 rat thoracic aorta smooth muscle cells and a EC50 of 186 ± 63 nM in Swiss mouse 3T3 fibroblasts. In addition, AL-8810 antagonizes the response to 100 nM fluprostrenol (Ki = 426 ± 63 nM) in a concentration-dependent manner in A7r5 cells. [1]

In the h-TM cells, AL-8810 antagonizes the (±) fluprostenol-induced PI turn over responses concentration dependently (Ki=2.56 ± 0.62 μm). AL-8810 also antagonizes bimatoprost, travoprost acid, latanoprost acid and travoprost acid. [2] In HCM cells, 1 μm AL-8810 blocks the 85% PGF2-induced MMP-2 secretion and 66% PGF2α-induced activation of ERK1/2. [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.