Product Name: Montelukast Sodium

Revision Date: 6/30/2016

Chemical Properties

Product Name: Montelukast Sodium

Cas No.: 151767-02-1

M.Wt: 608.17

Formula: C35H35ClNNaO3S

Chemical Name: sodium;2-[1-[[1R]-1-[[3-[[E]-2-(7-chloroquinolin-2-yl)ethenyl]phenyl]-3-[2-(2-hydroxypropan-2-yl)phenyl]propyl]sulfanyl)methyl]cyclopropyl]acetate

Canonical SMILES: CC(C)(C)(C1=CC=CC=C1CCC(C2=CC(CC=C2)C=CC3=NC4=C(C=CC(C=C4)Cl)C=C3)SCC5(CC5)CC=O][O-][Na+]

Solubility: >28.7mg/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: GPCR/G protein

Pathways: CysLT1 receptor

Description:

Montelukast Sodium (MK-0476) is a selective, reversible antagonist of leukotriene receptor with the Ki values of 0.52nM in U937 cell [1]. Montelukast Sodium has been reported to inhibit leukotriene D4 receptor specific binding in
U937 cell, guinea pig lung and sheep lung with the Ki values of 0.52nM, 0.18nM and 4nM, respectively. In addition, Montelukast Sodium has also shown the inhibitory effect with the IC50 of 10mM for leukotriene C3 in U937 cell membranes and 40mM for leukotriene B4 in THP-1 cell membranes. Apart from these, after oral treatment of Montelukast Sodium, it has been revealed to suppress leukotriene D4 receptor induced bronchoconstriction in conscious squirrel monkeys with ED50 value of 0.03±0.001mg/kg [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.