Product Data Sheet

Chemical Properties

Product Name: A 77636 hydrochloride
Cas No.: 145307-34-2
M.Wt: 365.9
Formula: C20H27NO3.HCl

Chemical Name: (1R,3S)-3-(((1s,3R,5R,7S)-adamantan-1-yl)-1-(aminomethyl)isochroman-5,6-diol hydrochloride
Canonical SMILES: OC(C1=C(C=C2)[C@H](CN)O[C@@H](C1)[C@]3(C[C@H](C4)C5)C[C@@H]4C[C@H]5C3)=C2O.Cl

Solubility: Soluble to 100 mM in sterile water
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: Neuroscience
Pathways: Dopamine Receptor

Description:

A 77636 hydrochloride is a potent and selective agonist of dopamine D1 receptor with Ki value of 39.8 nM [1]. Dopamine D1 receptor is a G-protein couple receptor for dopamine and stimulates adenylate cyclase and cyclic AMP-dependent protein kinases. Dopamine D1 receptor plays an important role in behavioral responses and neuronal growth and development.
A 77636 hydrochloride is a potent and selective dopamine D1 receptor agonist. A-77636 exhibited agonist activities with pEC50 values of 8.13 and 8.97 in the fish retina and the rat caudate-putamen, respectively [1]. In SK-N-MC neuroblastoma cell line, A-77636 significantly induced residual cAMP production [2].

In rats and mice, A-77636 induced forelimb clonus. In marmosets, A-77636 increased locomotor activity and inhibited the parkinsonian-like symptoms induced by MPTP [1]. In rat, A-77636 (4 μmol/kg) significantly increased acetylcholine release in both cortical and hippocampal. However, at a lower dose (1 μmol/kg) A-77636 only stimulated cortical acetylcholine release [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.