Product Data Sheet

Chemical Properties

Product Name: Amlodipine Besylate
Cas No.: 111470-99-6
M.Wt: 567.05
Formula: C20H25ClN2O5.C6H6O3S

Chemical Name: benzenesulfonic acid;3-O-ethyl 5-O-methyl 2-(2-aminoethoxymethyl)-4-(2-chlorophenyl)-6-methyl-1,4-dihydropyridine-3,5-dicarboxylate
Canonical SMILES: CCOC(=O)C1=C(NC(=C(C1C2=CC=CC=C2Cl)C(=O)OC)C)COCCN.C1=CC=C(C=C1)S(=O)(=O)O

Solubility: >26.1mg/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: Membrane Transporter/Ion Channel
Pathways: Calcium Channel
Description:
Amlodipine besylate is a long-acting Ca2+ channel blocker that reduce blood pressure as an antihypertensive drugs. Calcium channel is an ion channel that selectively permeable to calcium ions. It serves vital functions in cellular signal transduction.
In cortical neurons, treatment of amlodipine besylate (<= 5 um) rescued the viability of H(2) O(2)
injured cell and elevated the free radicals levels. Amlodipine besylate exhibits neuroprotective
effects, such as reducing oxidative stress, promoting survival signals and blocking death signals.
[1] It also showed proliferative effect on human epidermoid carcinoma A431 cells.[2] In
patient with exertional angina, amlodipine besylate reduced the total peripheral resistance and
myocardial oxygen demand. In cat orally treated with amlodipine besylate daily, the average
indirect systolic blood pressure were decreased without significant body weight/serum
creatinine/potassium concentrations changes. [3]

Reference:
[1] Lee YJ, Park HH, Koh SH, Choi NY, Lee KY. Amlodipine besylate and amlodipine camsylate
prevent cortical neuronal cell death induced by oxidative stress. J Neurochem. 2011

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.

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