

Product Data Sheet

Product Name: UCM-05194 (ammonium salt)

Cat. No.: GC92028

Chemical Properties

Cas. No.

Chemical Name benzenedecanoic acid, (1S)-1-(bromomethyl)-2-(phosphonooxy)ethyl ester, monoammonium salt

SMILES O=C(CCCCCCCCCC1=CC=CC=C1)O[C@@H](COP(O)([O-])=O)CBr.[NH4+]

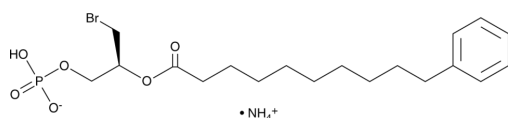
Formula $C_{19}H_{29}BrO_6P \cdot NH_4$ M.Wt 482.4

Solubility DMSO: Soluble, Ethanol: Slightly soluble, Water: Soluble Storage $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

UCM-05194 is an agonist of lysophosphatidic acid receptor 1 (LPA_1).¹ It induces calcium mobilization in RH7777 cells expressing LPA_1 ($EC_{50} = 0.24 \mu M$). It is selective for LPA_1 over LPA_2 and LPA_3 at $10 \mu M$ and is 10-fold selective over LPA_5 and 50-fold selective over LPA_4 , LPA_6 , and autotaxin. UCM-05194 ($1 \mu M$) induces neurite retraction in, and migration of, B103 rat neuroblastoma cells overexpressing LPA_1 . It induces receptor internalization and neuronal desensitization in the same cells when used at a concentration of $1 \mu M$ and reduces the firing activity of primary rat neonatal dorsal root ganglia (DRG) neurons with repeated application at $10 \mu M$. UCM-05194 (10 mg/kg) reduces acetic acid-induced writhing and hind paw mechanical hypersensitivity in mice.

References:

[1]. González-Gil, I., Zian, D., Vázquez-Villa, H., et al. A novel agonist of the type 1 lysophosphatidic

Caution: Product has not been fully validated for medical applications. For research use only.

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acid receptor (LPA1), UCM-05194, shows efficacy in neuropathic pain ameliorationJ. Med. Chem.63(5)2372-2390(2020).

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