

Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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PRODUCT INFORMATION



AM966

Item No. 22048

| CAS Registry No.: Formal Name: | 1228690-19-4 4'-[4-[[[(1R)-1-(2-chlorophenyl)ethoxy] carbonyl]amino]-3-methyl-5-isoxazolyl]- [1,1'-biphenyl]-4-acetic acid | |
|---|---|-----|
| MF: | $C_{27}H_{23}CIN_2O_5$ | |
| FW: | 490.9 | |
| Purity: | ≥98% | |
| UV/Vis.: | λ _{max} : 296 nm | |
| Supplied as: | A crystalline solid | , p |
| Storage: | -20°C | |
| Stability: | ≥2 years | ОН |
| Information represents the product specifications. Patch specific analytical results are provided on each certificate of analysis | | |

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

AM966 is supplied as a crystalline solid. A stock solution may be made by dissolving the AM966 in the solvent of choice. AM966 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of AM966 in ethanol is approximately 2.5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

AM966 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AM966 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AM966 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AM966 is an orally bioavailable, potent, and selective antagonist of the lysophosphatidic acid receptor 1 (LPA₁) that has an IC₅₀ value of 17 nM in a calcium assay using CHO cells transfected with the human LPA₁ receptor.¹ It is selective for LPA₁ over the LPA₂, LPA₃, LPA₄, and LPA₅ receptors (IC₅₀s = 1,700, 1,600, 7,700, and 8,600 nM for LPA₂₋₅, respectively). In vitro, AM966 inhibits LPA-induced lung fibroblast cell chemotaxis $(IC_{50} = 181 \text{ nM})$, increases barrier permeability, activates RhoA, and induces phosphorylation of myosin light chain and vascular endothelium cadherin (VE-cadherin).^{2,3} At a dose of 30 mg/kg in mice, it reduces inflammation, tissue fibrosis, and vascular permeability following bleomycin-induced lung injury. AM966 also blocks amitriptyline-induced ERK1/2, CREB, and insulin growth factor-1 receptor (IGF-IR) phosphorylation in vitro.²

References

- 1. Swaney, J.S., Chapman, C., Correa, L.D., et al. A novel, orally active LPA₁ receptor antagonist inhibits lung fibrosis in the mouse bleomycin model. Br. J. Pharmacol. 160(7), 1699-1713 (2010).
- 2. Olianas, M.C., Dedoni, S., and Onali, P. Antidepressants activate the lysophosphatidic acid receptor LPA to induce insulin-like growth factor-I receptor transactivation, stimulation of ERK1/2 signaling and cell proliferation in CHO-K1 fibroblasts. Biochem. Pharmacol. 95(4), 311-323 (2015).
- 3. Cai, J., Wei, J., Li, S., et al. AM966, an antagonist of lysophosphatidic acid receptor 1, increases lung microvascular endothelial permeability through activation of Rho signaling pathway and phosphorylation of VE-cadherin. Mediators Inflamm. 2017, 6893560 (2017).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

al should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution

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