

Macrophage-activating lipopeptide 2 TFA

Chemical Properties

CAS No. :

Formula: C99H167N19O30S.xC2HF3O2

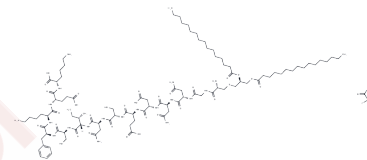
Molecular Weight:

Keep away from moisture

Storage:

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Macrophage-activating lipopeptide 2 TFA (MALP-2 TFA) is a diacylglycerol lipopeptide and TLR-2/TLR-6 agonist that activates immune cell responses such as macrophages, upregulating TNF, IL-6, and PGE2 to induce local inflammation.
Targets(IC50)	NO Synthase,IL Receptor,Prostaglandin Receptor,TLR,TNF
In vitro	<p>Method: Endothelial cells, including MyEnd cells, were treated with Macrophage-activating lipopeptide 2 TFA (1 µg/mL) for 24 hours and 2 hours, respectively, to assess its effects on the expression of leukocyte adhesion molecules and activation of signaling pathways.</p> <p>Result: Treatment with Macrophage-activating lipopeptide 2 TFA (1 µg/mL) for 24 hours upregulated the expression of key endothelial adhesion molecules and leukocyte integrin receptors, thereby enhancing leukocyte adhesion to endothelial cells. A 2-hour treatment promoted the phosphorylation of protein kinase B (Akt) and eNOS in MyEnd cells, leading to increased nitric oxide (NO) release. [1]</p>
In vivo	<p>Method: A lower limb ischemia model was established in hypercholesterolemic Apoe-deficient mice by performing experimental femoral artery ligation (FAL). Mice were then treated with Macrophage-activating lipopeptide 2 TFA (1 µg dissolved in 125 µL PBS) via intravenous injection once daily for 10 consecutive days. The effects on hindlimb perfusion recovery and collateral vessel growth were evaluated.</p> <p>Result: Intravenous administration of Macrophage-activating lipopeptide 2 TFA significantly improved hindlimb perfusion recovery and promoted collateral vessel growth in Apoe-deficient mice following FAL. [1]</p>

Solubility Information

A DRUG SCREENING EXPERT

Solubility	H2O: 1.5 mg/mL,when pH is adjusted to 12 with 1M NaOH. Sonication is recommended. DMSO: 40 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

Troidl K, et al. The Lipopeptide MALP-2 Promotes Collateral Growth. Cells. 2020 Apr 16;9(4):997.

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