Data Sheet (Cat.No.TP3723)

TargetMol

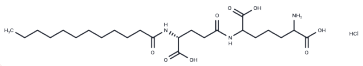
C12-iE-DAP hydrochloride

Chemical Properties

CAS No. :

Formula: C24H43N3O8.xHCl

Molecular Weight:



Storage: Keep away from moisture
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	C12-iE-DAP hydrochloride is the hydrochloride salt form of C12-iE-DAP and is a biologically active peptide that functions as an agonist of NOD1, making it a useful research reagent for investigating innate immune recognition, pattern recognition receptor signaling, and host-pathogen interaction pathways.
Targets(IC50)	NOD
In vitro	**Method**: HEK293 cells were engineered using a lentiviral NF-κB-dependent β-galactosidase reporter system to measure NOD1 receptor activation. **Result**: NOD1 ligand stimulation activated NF-κB signaling in HEK293 cells, enabling quantitative assessment of receptor-ligand interactions via β-galactosidase activity[1].
In vivo	**Method**: C12-iE-DAP hydrochloride (200 μg/mouse) or TLR4 ligand (5 μg/mouse) was administered intramuscularly in mice, and NF-κB activation was measured across organs. **Result**: C12-iE-DAP hydrochloride induced maximal NF-κB activation in the liver and small intestine at 5 h post-injection, with minimal activation in kidneys, heart, and small intestine relative to other organs.

Solubility Information

Solubility	DMSO: 80.00 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Reference

Tukhvatulin AI, Logunov DY, Gitlin II, Shmarov MM, Kudan PV, Adzhieva AA, et al. A In Vitro and In Vivo Study of the Ability of NOD1 Ligands to Activate the Transcriptional Factor NF-kB. Acta Naturae. 2011;3(1):77-84.

Agnihotri G, Ukani R, Malladi SS, Warshakoon HJ, Balakrishna R, Wang X, et al. Structure-activity relationships in nucleotide oligomerization domain 1 (Nod1) agonistic γ-glutamyldiaminopimelic acid derivatives. J Med Chem. 2011 Mar 10;54(5):1490-510.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481