

RS 09 TFA

Chemical Properties

CAS No. :

Formula: C33H50F3N9O11

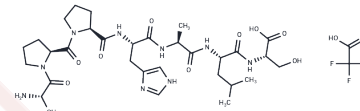
Molecular Weight: 805.8

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

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	RS 09 TFA is a TLR4 agonist and LPS peptide analogue that promotes NF-κB nuclear translocation and induces inflammatory cytokine secretion in RAW264.7 macrophages. It restores macrophage polarisation and inflammatory responses while disrupting the neuroprotective effects of ciliary proteins.
Targets(IC50)	NF-κB, Immunology/Inflammation related, TLR
In vitro	In HEK-BLUETM-4 cells, RS 09 TFA (1-10 µg/mL, 24 hours) can stimulate TLR-4 and activate NF-κB[1]. In RAW264.7 cells, RS 09 TFA (5 µg/mL, 15 minutes-24 hours) binds to TLR-4 and induces NF-κB nuclear translocation as well as the secretion of inflammatory cytokines[1].
In vivo	RS 09 TFA serves as an immune adjuvant, combined with the prostate cancer-specific antigen X-15 (conjugated to the carrier protein KLH) for immunization in BALB/c mice. Experimental results demonstrate that this compound can significantly elevate the concentration of X-15-specific antibodies in the mice [1].

Solubility Information

Solubility	H2O: ≥ 40 mg/mL, Sonication is recommended. DMSO: ≥ 80 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (4.1 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.241 mL	6.205 mL	12.410 mL
5 mM	0.2482 mL	1.241 mL	2.482 mL
10 mM	0.1241 mL	0.6205 mL	1.241 mL
50 mM	0.0248 mL	0.1241 mL	0.2482 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Arulkumaran Shanmugam, et al. Synthetic Toll Like receptor-4 (TLR-4) Agonist Peptides as a Novel Class of Adjuvants. PLoS One. 2012;7(2):e30839.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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