

PRODUCT INFORMATION



RS 09 (trifluoroacetate salt)

Item No. 33152

Formal Name: L-alanyl-L-prolyl-L-prolyl-L-histidyl-L-alanyl-L-leucyl-L-serine, trifluoroacetate salt

Synonyms: Ala-Pro-Pro-His-Ala-Leu-Ser, APPHALS

MF: C₃₁H₄₉N₉O₉ • XCF₃COOH

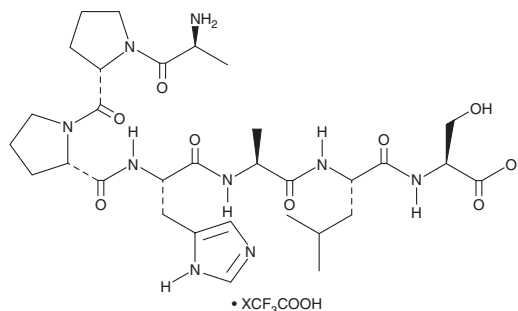
FW: 691.8

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

RS 09 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the RS 09 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. RS 09 (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of RS 09 (trifluoroacetate salt) in these solvents is approximately 30, 10, and 1 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of RS 09 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of RS 09 (trifluoroacetate salt) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

RS 09 is a peptide agonist of toll-like receptor 4 (TLR4).¹ It activates NF-κB in a concentration-dependent manner in a secreted alkaline phosphatase (SEAP) assay using TLR4-expressing HEK293 cells and induces NF-κB nuclear translocation in the same cells. It also induces cytokine secretion from RAW 264.7 cells. RS 09 (25 μg/animal) acts as an adjuvant in mice vaccinated with a KLH-conjugated X-15 antigen, with no antibodies produced in mice receiving RS 09 without the antigen.

Reference

1. Shanmugam, A., Rajoria, S., George, A.L., *et al.* Synthetic toll like receptor-4 (TLR-4) agonist peptides as a novel class of adjuvants. *PLoS One* **7**(2), e30839 (2012).

WARNING

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

SAFETY DATA

This material 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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