

PRODUCT INFORMATION



IRAK1 (360-380) (trifluoroacetate salt)

Item No. 42080

Formal Name: (2S,5S,8S,11S,14S,17S,20S,23S)-20-(3-amino-3-oxopropyl)-24-(((S)-2-(((2S,5S,11S,14S,17S,20S,23S,26S,29S,32S,35S)-39-amino-32-(4-aminobutyl)-14,23-dibenzyl-17,26-bis(3-((diaminomethylene)amino)propyl)-35-formyl-1-hydroxy-5,20-bis(hydroxymethyl)-11,29-dimethyl-3,6,9,12,15,16,21,24,25,30,33-undecaoxo-4,7,10,13,18,19,22,27,28,31,34-undecaazanonatriacontan-2-yl)carbamoyl)pyrrolidin-1-yl)-2-(3-((diaminomethylene)amino)propyl)-14,17,23-tris(hydroxymethyl)-8-isopropyl-5-methyl-11-(2-(methylthio)ethyl)-6,9,12,15,18,21,24-heptaooxo-3,4,7,10,13,16,19,22-octaazatetracosanoic acid, trifluoroacetate salt

H—Lys—Lys—Ala—Arg—Phe—Ser—Arg—Phe—Ala—Gly—

Ser—Ser—Pro—Ser—Gln—Ser—Ser—Met—Val—Ala—

Arg—OH

• XCF₃COOH

Synonyms: IL-1 Receptor-associated Kinase 1, Interleukin-1 Receptor-associated Kinase 1, IRAK4 Peptide Substrate

Peptide Sequence: KKARFSRFAGSSPSQSSMVAR-OH

MF: C₉₇H₁₆₁N₃₃O₂₉S • XCF₃COOH

FW: 2,285.6

Purity: ≥98%

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

IRAK1 (360-380) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the IRAK1 (360-380) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. IRAK1 (360-380) (trifluoroacetate salt) is soluble (≥10 mg/ml) in DMSO.

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 IRAK1 (360-380) (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. IRAK1 (360-380) (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

IL-1 receptor-associated kinase 1 (IRAK1) (360-380) is a peptide substrate of IRAK4.¹ It has been used in competition assays to identify inhibitors of IRAK4.^{1,2}

References

1. Song, K.W., Talamas, F.X., Suttman, R.T., *et al.* The kinase activities of interleukin-1 receptor associated kinase (IRAK)-1 and 4 are redundant in the control of inflammatory cytokine expression in human cells. *Mol. Immunol.* **46**(7), 1458-1466 (2009).
2. Kuglstatter, A., Villaseñor, A.G., Shaw, D., *et al.* Cutting Edge: IL-1 receptor-associated kinase 4 structures reveal novel features and multiple conformations. *J. Immunol.* **178**(5), 2641-2645 (2007).

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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