

PRODUCT INFORMATION

CREKA (trifluoroacetate salt)

Item No. 44492

Formal Name: (2S,5S,8S,11S,14R,17S)-17-amino-5-(4-aminobutyl)-37-azido-8-(2-carboxyethyl)-11-(3-guanidinopropyl)-14-(mercaptomethyl)-2-methyl-4,7,10,13,16,23-hexaoxo-26,29,32,35-tetraoxa-3,6,9,12,15,22-hexaazaheptatriacontanoic acid, 2,2,2-trifluoroacetic acid

Peptide Sequence: Cys-Arg-Glu-Lys-Ala

MF: $C_{40}H_{74}N_{14}O_{14}S \cdot CF_3COOH$

FW: 1,121.2

Purity: $\geq 95\%$

Supplied as: A solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years

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

Laboratory Procedures

CREKA (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the CREKA (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. CREKA (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 CREKA (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. CREKA (trifluoroacetate salt) is soluble (≥ 10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

CREKA is a linear 5-amino acid tumor-homing peptide that recognizes fibrin-fibronectin complexes.¹⁻³ It has been conjugated to lipid nanoparticles (LNPs) for the targeting of fibrin-fibronectin complexes *in vitro* and in mouse xenograft models.^{1,3} CREKA has also been used in the synthesis of fusion proteins for the targeting of fibrin-fibronectin complexes in mouse thrombosis models.²

References

1. Zhang, N., Ru, B., Hu, J., *et al.* Recent advances of CREKA peptide-based nanoplatfroms in biomedical applications. *J. Nanobiotechnology* **21**(1), 77 (2023).
2. Hajizade, M.S., Rae, M., Faraji, S.N., *et al.* Targeted drug delivery to the thrombus by fusing streptokinase with a fibrin-binding peptide (CREKA): An *in silico* study. *Ther. Deliv.* **15**(6), 399-411 (2024).
3. Kruse, A.M., Meenach, S.A., Anderson, K.W., *et al.* Synthesis and characterization of CREKA-conjugated iron oxide nanoparticles for hyperthermia applications. *Acta Biomater.* **10**(6), 2622-2629 (2014).

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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