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ProductInformation

CTACK
Human, Recombinant
Expressed in *E. coli*

Product Number **C 8365**

Product Description

Recombinant Human CTACK is produced from a DNA sequence encoding the mature human CTACK/CCL27 protein sequence (FLLPPSTACCTQLYRKPLSDKLLR-KVIQVELQEADGDCHLQAFVLHLAQRSICIHPQNPSLS QWFEQERKLHGTLPKLNFGMLRKMG).[1] The protein is expressed in *E. coli*. Recombinant human CTACK (88 amino acid residues) has a predicted molecular mass of approximately 10.1 kDa. Based mass spectrometric analysis, a carboxy-terminal truncated peptide with a molecular mass of approximately 9.8 kDa is also present in this preparation.

CTACK/CCL27, also known as ALP, ILC, and Eskine, is a CC β chemokine. CTACK was discovered independently by several laboratories. It was identified through searches of EST databases for chemokine homologies and reported initially as CTACK (cutaneous T cell-attracting chemokine),[3] ALP (Ala-Leu-Pro, an amino-terminal peptide sequence present around the signal peptide cleavage site),[4] and ILC (IL-11 Ra-locus chemokine because the gene is adjacent to the IL-11 Ra gene).[5] CTACK was also isolated from a mouse embryonic stem cell library and reported as ESkine.[6] The cDNA for CTACK encodes a protein of 112 amino acids with a 24 amino acid predicted signal peptide that is cleaved to give an 88 amino acid mature protein. The CTACK gene has been mapped to human chromosome 9 and mouse chromosome 4.[3-5] Mature human and mouse CTACK share 84% amino acid sequence identity.[3, 5]

Human CTACK has been found in normal and lesional psoriatic skin cDNA libraries with the protein produced primarily by keratinocytes. Human CTACK has been found to chemoattract memory T cells positive for the cutaneous lymphocyte associated antigen (CLA+).[11] CTACK binds to the seven transmembrane spanning G protein-coupled receptor GPR-2, now known as human CCR10.[1, 2]

Reagent

Recombinant Human CTACK is supplied as approximately 25 µg of protein lyophilized from a 0.2 µm filtered solution in 30% acetonitrile and 0.1% TFA containing 1.25 mg bovine serum albumin.

Storage/Stability

Store at –20 °C. Upon reconstitution, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

Preparation Instructions

Reconstitute the contents of the vial using 0.2 µm filtered phosphate buffered saline (PBS) containing at least 0.1% human serum albumin or bovine serum albumin. Prepare a stock solution of at least 25 µg/ml.

Product Profile

Recombinant Human CTACK is measured by its ability to induce chemotaxis of mouse BaF/3 cells transfected with mouse CCR10 (mouse GPR2).

Endotoxin: < 1.0 EU (endotoxin units)/µg protein as determined by the LAL (Limulus amebocyte lysate) method.

References

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5. Ishikawa-Mochizuki, I., et al., FEBS Lett., **460**, 544 (1999).
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