



Technical Data Sheet

Recombinant Human Fractalkine (rHu Fractalkine/CX3CL1)

Human Fractalkine/CX3CL1

Fractalkine, also named neurotactin, is a novel chemokine recently identified through bioinformatics. Fractalkine has a unique C-X3-C cysteine motif near the amino-terminus and is the first member of a fourth branch of the chemokine superfamily. Unlike other known chemokines, fractalkine is a type 1 membrane protein containing a chemokine domain tethered on a long mucin-like stalk. Human fractalkine cDNA encodes a 397 amino acid (aa) residue membrane protein with a 24 aa residue predicted signal peptide, a 76 aa residue chemokine domain, a 241 aa residue stalk region containing 17 degenerate mucin-like repeats, a 19 aa residue transmembrane segment and a 37 aa residue cytoplasmic domain. The extracellular domain of human fractalkine can be released, possibly by proteolysis at the dibasic cleavage site proximal to the membrane, to generate soluble fractalkine. The soluble chemokine domain of human fractalkine was reported to be chemotactic for T cells and monocytes while the soluble chemokine domain of mouse fractalkine was reported to chemoattract neutrophils and T-lymphocytes but not monocytes.

Catalog Number:	RC314-12
Source:	<i>Escherichia coli</i> .
Molecular Weight:	8.5 kDa, a single non-glycosylated polypeptide chain containing 76 amino acids and comprises only the chemokine domain of Human Fractalkine.
Quantity:	5ug/20ug/1mg
Purity:	>97% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. Determined by its ability to chemoattract human T-Lymphocytes using a concentration range of 5.0-10.0 ng/ml.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated (1.0mg/ml) solution in 20mM PB, pH 7.4, 50mM NaCl.
AA Sequence:	QHGGVTKCNITCSKMTSKIPVALLIHYQQNQASCGKRAIILETRQHRLFCAD PKEQWVKDAMQHLDRQAAALTRNG
Endotoxin:	Less than 1EU/µg of rHuFractalkine/CX3CL1 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable



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for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. **Avoid repeated freeze/thaw cycles.**

Usage:

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