

Fractalkine Protein, Cynomolgus, Rhesus, Recombinant (His)

General Information

Synonyms:	chemokine (C-X3-C motif) ligand 1
Protein Construction:	The cynomolgus / rhesus CX3CL1 (EHH60415.1) (Met1-Gly100) was expressed with a polyhistidine tag at the C-terminus. Cynomolgus and Rhesus CX3CL1 sequences are identical.
Species:	Cynomolgus, Rhesus
Expression Host:	HEK293 Cells
Accession:	G7Q177
Molecular Weight:	10.1 kDa (predicted)

QC Testing

Biological Activity:	Testing in progress
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Fractalkine or Chemokine (C-X3-C motif) ligand 1 (CX3CL1) is a member of the CX3C chemokine family. Fractalkine / CX3CL1 is a unique chemokine that functions not only as a chemoattractant but also as an adhesion molecule and is expressed on endothelial cells activated by proinflammatory cytokines, such as interferon-gamma and tumor necrosis factor-alpha. Fractalkine/CX3CL1 is expressed in a membrane-bound form on activated endothelial cells and mediates attachment and firm adhesion of T cells, monocytes and NK cells. Fractalkine / CX3CL1 is associated with dendritic cells (DC) in epidermis and lymphoid organs. The fractalkine receptor, CX3CR1,

is expressed on cytotoxic effector lymphocytes, including natural killer (NK) cells and cytotoxic T lymphocytes, which contain high levels of intracellular perforin and granzyme B, and on macrophages. Soluble fractalkine causes migration of NK cells, cytotoxic T lymphocytes, and macrophages, whereas the membrane-bound form captures and enhances the subsequent migration of these cells in response to secondary stimulation with other chemokines.

Reference

Imai T, et al. (1997) Identification and molecular characterization of fractalkine receptor CX3CR1, which mediates both leukocyte migration and adhesion. Cell. 91(4): 521-30.