

Canine Fractalkine / CX3CL1 Protein (Fc Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 70071-D02H

General Information

Gene Name Synonym:

CX3CL1

Protein Construction:

A DNA sequence encoding the canine CX3CL1 (H1ADY9) (Met1-Arg379) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Canine

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 25

Molecular Mass:

The recombinant canine CX3CL1/Fc is a disulfide-linked homodimer. The reduced monomer comprises 596 amino acids and has a predicted molecular mass of 64.4 kDa. The apparent molecular mass of the protein is approximately 70-100 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

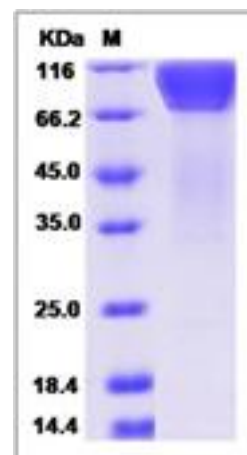
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1. 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.
2. Papadopoulos EJ, *et al.* (1999) Fractalkine, a CX3C chemokine, is expressed by dendritic cells and is up-regulated upon dendritic cell maturation. *Eur J Immunol*. 29 (8): 2551-9.
3. Umehara H, *et al.* (2004) Fractalkine in vascular biology: from basic research to clinical disease". *Arterioscler. Thromb Vasc Biol*. 24 (1): 34-40.

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