Mouse CCL8 / MCP-2 Protein (His & NusA Tag)

Catalog Number: **50181-M24E**

General Information

Gene Name Synonym:

1810063B20Rik; AB023418; HC14; MCP-2; Mcp2; Scya8

Protein Construction:

A DNA sequence encoding the mature form of mouse CCL8 (Q9Z121) (Gly 24-Pro 94) was fused with the polyhistidine-tagged NusA tag at the N-terminus.

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant mouse CCL8/NusA chimera consisting of 587 amino acids and has a calculated molecular mass of 66 kDa as estimated in SDS-PAGE under reducing conditions.

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:

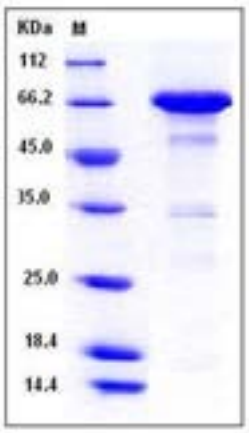
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Chemokines are a family of small chemotactic cytokines, or proteins secreted by cells. Chemokines share the same structure similarities such as small size, and the presence of four cysteine residues in conserved locations in order to form their 3-dimensional shape. Some of the chemokines are considered pro-inflammatory which can be induced to recruit cells of the immune system to a site of infection during an immune response, while others are considered homeostatic and are implied in controlling the migration of cells during normal processes of tissue maintenance and development. There are four members of the chemokine family: C-C kemokines, C kemokines, CXC kemokines and CX3C kemokines. The C-C kemokines have two cysteines nearby the amino terminus. There have been at least 27 distinct members of this subgroup reported for mammals, called C-C chemokine ligands-1 to 28. Chemokine ligand 8 (CCL8), also known as monocyte chemoattractant protein 2 (MCP-2), is a small cytokine belonging to the C-C chemokine family. CCL8 functions to activate different immune cells, including mast cells, eosinophils and basophils which are involved in allergic responses, monocytes, and T cells and NK cells which are involved in the inflammatory response. CCL8's ability achieves by binding to different cell surface receptors termed chemokine receptors including CCR1, CCR2B and CCR5. It has been reported that CCL8 is a potent inhibitor of HIV-1 by virtue of its binding to CCR5 which is one of the major co-receptors for HIV-1.

References

1.Laing KJ, *et al.* (2004) Chemokines. Developmental and comparative immunology. 28 (5): 443-60. 2.Cocchi F, *et al.* (1995) Identification of RANTES, MIP-1a, and MIP-1b as the major HIV-suppressive factor produced by $CD8^+$ T cells. Science. 270 (5243): 1811–5. 3.Hori T, *et al.* (2008) CCL8 is a potential molecular candidate for the diagnosis of graft-versus-host disease. Blood. 111 (8): 4403-12.