

Canine IL5 Protein (His Tag)

Catalog Number: 70019-D08B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL5

Protein Construction:

A DNA sequence encoding the extracellular domain of canine IL5 (NP_001006951.1) (Met 1-Ser 134) was expressed, with a polyhistidine tag at the C-terminus.

Source: Canine

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED₅₀ for this effect is typically 2-8 ng/mL.

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: Val 22

Molecular Mass:

The recombinant canine IL5 consists of 124 amino acids and has a predicted molecular mass of 14.54 kDa. As a result of glycosylation, the apparent molecular mass of the canine IL5 is approximately 17-19 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.5, 10% gly

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:

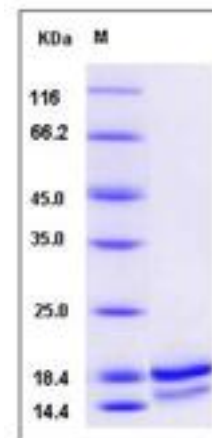
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin 5 (IL-5) is a member of the interleukin family with length of 115 amino acids. Interleukins are a group of cytokines (secreted proteins / signaling molecules) that were first seen to be expressed by white blood cells (leukocytes) and has been found in a wide variety of body cells. Interleukin 5 or IL-5 is produced by T helper-2 cells and mast cells. It helps to stimulate B cell growth and increase immunoglobulin secretion and is considered as a key mediator in eosinophil activation. Interleukin 5 (IL-5) has long been associated with several allergic diseases, including allergic rhinitis and asthma. Growth in the number of circulating, airway tissue, and induced sputum eosinophils have been observed in patients with these diseases. IL-5 also had something with the terminally differentiated granulocyte eosinophils. IL-5 was originally found as an eosinophil colony stimulating factor. It has been proved to be a major regulator of eosinophil accumulation in tissues, and can modulate eosinophil behavior at every stage from maturation to survival.

References

1. Milburn MV, *et al.* (1993) A novel dimer configuration revealed by the crystal structure at 2.4 Å resolution of human interleukin-5. *Nature*. 363(6425): 172-176. 2. Lee JS, *et al.* (1989) The IL-4 and IL-5 genes are closely linked and are part of a cytokine gene cluster on mouse chromosome 11. *Somat Cell Mol Genet*. 15(2): 143-152. 3. Woodcock JM, *et al.* (1994) Three residues in the common beta chain of the human GM-CSF, IL-3 and IL-5 receptors are essential for GM-CSF and IL-5 but not IL-3 high affinity binding and interact with Glu21 of GM-CSF. *EMBO J*. 13 (21): 5176-85.

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