Mouse IL10 / IL-10 / Interleukin-10 Protein

Catalog Number: **50245-MNAE**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CSIF; Il-10

Protein Construction:

A DNA sequence encoding the mouse IL10 (NP_034678.1) (Ser19-Ser178) was expressed with an initial Met.

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Bio Activity:

Measured in a cell proliferation assay using MC/9 mouse mast cells. The ED_{50} for this effect is typically 0.5-4 ng/mL.

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 IL10 consists of 160 amino acids and predicts a molecular mass of 18.8 kDa.

Formulation:

Lyophilized from sterile 20 mM Tris, 200 mM NaCl.

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:

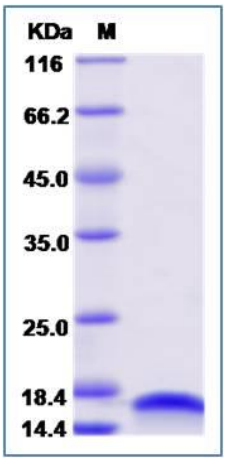
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IL-1 is a anti-inflammatory cytokine which belongs to the IL-1 family. It is produced by a variety of cell lines, including T-cells, macrophages, mast cells and other cell types, while it is produced primarily by monocytes and to a lesser extent by lymphocytes. IL-1 is mainly expressed in monocytes and Type 2 T helper cells (TH2), mast cells, CD4+CD25+Foxp3+ regulatory T cells, and also in a certain subset of activated T cells and B cells. IL-1 has pleiotropic effects in immunoregulation and inflammation. It down-regulates the expression of Th1 cytokines, MHC class II Ags, and costimulatory molecules on macrophages. It also enhances B cell survival, proliferation, and antibody production. IL-1 can block NF-kappa B activity, and is involved in the regulation of the JAK-STAT signaling pathway. Knockout studies in mice suggested the function of this cytokine as an essential immunoregulator in the intestinal tract. The importance of interleukin 1 for counteracting excessive immunity in the human body is revealed by the fact that patients with Crohn's disease react favorably towards treatment with bacteria producing recombinant IL-1. IL-1 inhibits the synthesis of a number of cytokines, including IFN-gamma, IL-2, IL-3, TNF and GM-CSF produced by activated macrophages and by helper T-cells. It also displays a potent ability to suppress the antigen-presentation capacity of antigen presenting cells. However, it is also stimulatory towards certain T cells and mast cells and stimulates B cell maturation and antibody production.

References

1.Arimoto T, *et al.* (2007) Interleukin-10 protects against inflammation-mediated degeneration of dopaminergic neurons in substantia nigra. Neurobiol Aging. 28(6):894-906. 2.Han X, *et al.* (2010) Effect of cobalt protoporphyrin on hyperexpression of heme oxygenase-1 and secretion of IL-10 in rat bone marrow mesenchymal stem cells. Zhongguo Shi Yan Xue Ye Xue Za Zhi. 18(5):1297-301. 3.Cui QQ, *et al.* (2011) Expression of RhoA in the lung tissue of acute lung injury rats and the influence of RhoA on the expression of IL-8 and IL-10. Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi. 77(7): 1436-41.