Human IL17 / IL17A Protein

Catalog Number: 12047-HNAS

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CTLA-8; CTLA8; IL-17; IL-17A; IL17

Protein Construction:

A DNA sequence encoding the human IL17A (Q16552) (Met1-Ala155) was expressed.

Source: Human

Expression Host: CHO Stable Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human IL17A (cat:12047-HNAS) at 10 μg/ml (100 μl/well) can bind human IL17Ra (Cat:10895-H03H), The EC_{50} of human IL17Ra (Cat:10895-H03H) is 20.0-48.0 ng/ml.
2. Measured by its ability to induce IL-6 secretion by NIH- 3T3 mouse embryonic fibroblast cells in the presense of 20ng/mL TNFα. The $ED_{50}$for this effect is 0.2-1ng/mL.

Endotoxin:

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

Predicted N terminal: Gly 24

Molecular Mass:

The recombinant human IL17A consists of 132 amino acids and predicts a molecular mass of 15.1 KDa. It migrates as an approximately 16, 19, and 20 KDa band in SDS-PAGE under reducing conditions due to different 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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

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

IL17, also known as IL17a, is a cytokine belongs to the IL-17 family. Cytokines are proteinaceous signaling compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. The IL-17 family of cytokines includes six members, IL-17/IL-17A, IL-17B, IL-17C, IL-17D, IL-17E/IL-25, and IL-17F, which are produced by multiple cell types. IL-17 regulates the activities of NF-kappaB and mitogen-activated protein kinases. This cytokine can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). High levels of IL-17 are associated with several chronic inflammatory diseases including rheumatoid arthritis, psoriasis and multiple sclerosis.

References

1.Andoh A, et al. (2002) IL-17 selectively down-regulates TNF-alpha-induced RANTES gene expression in human colonic subepithelial myofibroblasts. J Immunol. 169(4):1683-7.
2.Kotake S, et al. (1999) IL-17 in synovial fluids from patients with rheumatoid arthritis is a potent stimulator of osteoclastogenesis. J Clin Invest. 103(9):1345-52.
3.Laan M, et al. (1999) Neutrophil recruitment by human IL-17 via C-X-C chemokine release in the airways. J Immunol. 162(4):2347-52.