

Recombinant Mouse IL-17A/CTLA-8 Protein

Catalog No.: RP01460 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	16171	Q62386-1

Tags

C-His

Synonyms

IL17;Ctla8;IL-17;Ctla-8;IL17A;IL-17A

Product Information

Source	Purification
HEK293 cells	> 90% by SDS-PAGE.

Endotoxin

<0.1EU/ μ g

Formulation

Lyophilized from a 0.22 μ m filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

IL17, also known as IL17a, is a cytokine that 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.

Basic Information

Description

Recombinant Mouse IL-17A/CTLA-8 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala26-Ala158) of mouse IL-17A/CTLA-8 (Accession #NP_034682.1.) fused with a 6xHis tag at the C-terminus.

Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Mouse IL-17A/CTLA-8 at 2 μ g/mL (100 μ L/well) can bind Mouse IL-17RA/CD217 with a linear range of 0.1-26 ng/mL. Measured by its ability to induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells in the presence of 2 ng/mL TNF α (Catalog: RP01071). The ED₅₀ for this effect is 0.26-1.04 ng/mL, corresponding to a specific activity of 9.62 \times 10⁵~3.85 \times 10⁶ units/mg.

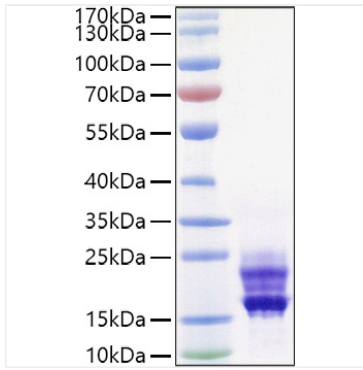
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

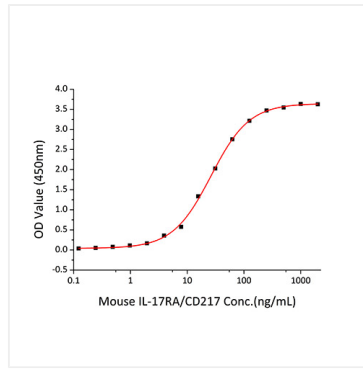
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

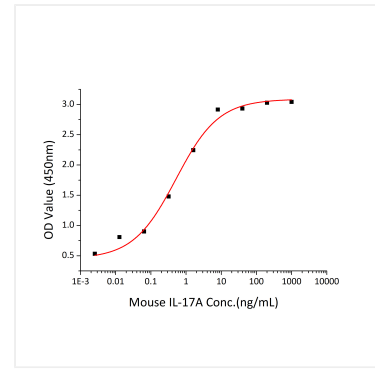
Validation Data



Recombinant Mouse IL-17A/CTLA-8 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 16-24kDa.



Immobilized Mouse IL-17A/CTLA-8 at 2 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Mouse IL-17RA/CD217 with a linear range of 0.1-26 ng/mL.



Recombinant Mouse IL-17A/CTLA-8 Protein induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells in the presence of 2 ng/mL TNF α (Catalog: RP01071). The ED₅₀ for this effect is 0.26-1.04 ng/mL, corresponding to a specific activity of $9.62 \times 10^5 \sim 3.85 \times 10^6$ units/mg.