

Recombinant Mouse IL-19 Protein

Catalog No.: RP01890 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	329244	Q8CJ70

Tags

C-His

Synonyms

IL-10C; IL19; IL-19; interleukin 19; MDA1; melanoma differentiation associated protein-like protein; NG.1Melanoma differentiation-associated protein-like protein; ZMDA1interleukin-19

Product Information

Source	Purification
HEK293 cells	> 97% by SDS-PAGE.

Calculated MW	Observed MW
18.45 kDa	25-53 kDa

Endotoxin

<0.1EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm 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.

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Background

Interleukin 19 (IL-19) is a member of the IL-10 family of cytokines. The IL-10 family is a class II alpha-helical collection of cytokines that contains two groups, a viral homolog and a cellular homolog group. Within the cellular homolog group, there are two additional groupings, one which uses IL-10 R2 as a signal transducing receptor (IL-10, IL-22 and IL-26), and one which uses IL-20 R2 as a signal transducing receptor (IL-19, IL-20 and IL-24). Mouse IL-19 is synthesized as a 176 amino acid (aa) precursor that contains a 24 aa signal sequence and a 152 aa mature region. Based on human studies, it is expected to be secreted as a glycosylated monomer, 35 - 45 kDa in size. IL-19 is unusual in that it contains seven amphipathic helices. Mature mouse IL-19 shares 69% aa sequence identity with the mature human IL-19, and 85% and 68% aa identity to unpublished Genbank sequences for rat and canine IL-19, respectively. Although mouse IL-19 is active on human cells, human IL-19 is not active on mouse cells. IL-19 expression is limited to activated keratinocytes and monocytes, with a possible contribution from B cells. IL-19 binds a receptor complex consisting of the IL-20 receptor alpha (also known as IL-20 R1) and the IL-20 receptor beta (IL-20 R2). This receptor complex is also shared by IL-20 and IL-24. Notably, IL-19 is reported to actually bind to IL-20 R2, which is generally considered to be only the signal transducing receptor subunit. Functionally, it has been reported that IL-19 both will and will not induce IL-6 and TNF production by monocytes. It does, however, seem to drive T-helper cell differentiation towards a Th2 response, inducing both IL-10 and production of itself.

Basic Information

Description

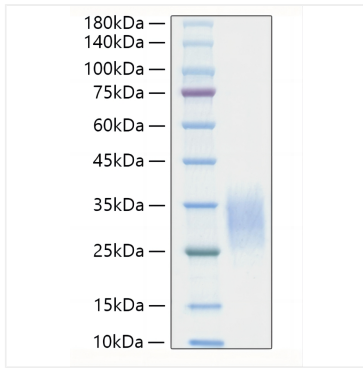
Recombinant Mouse IL-19 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu25-Ala176) of Mouse IL-19 (Accession #NP_001009940.1) fused with a His tag at the C-terminus.

Bio-Activity

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-19 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 25-40 kDa.