



Cat# MF-11035

Mouse IL35/Fc Fusion Protein Cytolytic

GENERAL INFORMATION

Gene Name Synonym:

IL35 , Interleukin-35

Molecular Structure:

A DNA sequence encoding the Mouse IL35 complex composed of EBI3 subunit(NP_056581.1)(Met1-Pro228) and the mature form of Mouse IL12a subunit (NP_032377.1)(Arg23-Ala215) linked by a polypeptide linker was fused with the Fc region of Human IgG1 at the C-terminus.

Cytolytic:

A cytolytic mouse IL35/Fc Fusion Protein is made by genetically fusing the extracellular domain of mouse IL35 to human IgG1 Fc. Since the IgG1 human isotype is able to bind effectively to cells expressing the high affinity FcγR I receptor and possesses a complement (C1q) binding domain, thus is able to facilitate antibody-dependent cell-mediated cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC).

Source : Mouse
Transfectant Cell Line: CHO cells
Predicted Molecular Mass : 73kDa(monomer)

Specifications

Purity:

≥98% as determined by SDS-PAGE

Endotoxin:

≤0.1EU/μg as determined by LAL test

Formulation:

Lyophilized from a 0.2 μm filtered solution in PBS.

Reconstitution:

Reconstitute at 100 μg/mL in sterile PBS.

Stability and Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
12 months from date of receipt, -20 to -70°C as supplied.
1 Weeks, 2 to 8 °C under sterile conditions after reconstitution.
3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Interleukin-35 (IL35) is a novel IL12 family cytokine produced by regulatory T cells (Treg) but not by resting or activated effector T cells (Teff). IL35 is a heterodimeric protein composed of EBI3(Epstein-Barr-Virus-induced gene 3) and IL12a (p35). EBI3 is a downstream target of Foxp3, a transcription factor required for Treg-cell development and function, and thus Treg-cell restriction of IL35 occurs. Regulatory T cells are essential for maintaining self tolerance and preventing autoimmunity, and IL35 is identified as a molecule that mediates the immune suppression function of Treg-cell. As an inhibitory cytokine, IL35 induces proliferation of Treg-cell populations but suppresses Th17 cell development. Studies in mice show the absence of either IL35 chain from Treg-cell reduces the cells' ability to suppress inflammation using an experimental model for inflammatory bowel disease. IL35 is suggested as a potential target of immunotherapy.

REFERENCES

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3. Alexander Marson, Karsten Kretschmer, et al. Foxp3 occupancy and regulation of key target genes during T-cell stimulation
4. Pflanz S, Timans JC, Cheung J, et al. IL-27, a heterodimeric cytokine composed of EBI3 and p28 protein, induces proliferation of naive CD41 T cells. *Immunity*, 2002, 16: 779–790.