

IL-34 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	interleukin 34;2010004A03Rik;AI593503
Protein Construction:	A DNA sequence encoding the extracellular domain (Met 1-Pro 235) of mouse mIL34 (NP_001128572.1) precursor was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Asn 21
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q8R1R4-1
Molecular Weight:	26 kDa (predicted); 38 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	1. Measured by its ability to bind biotinylated recombinant mouse CSF1R in a functional ELISA. 2. Measured in a cell proliferation assay using M-NFS-60 mouse myeloid cells. The ED50 for this effect is typically 50-200 ng/mL.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

IL34 (Interleukin 34) is a Protein Coding gene. IL-34, also known as uncharacterized protein C16 or f77 homolog, belongs to the IL-34 family. IL-34 is a cytokine that promotes the differentiation and viability of monocytes and

macrophages through the colony-stimulating factor-1 receptor (CSF1R). IL-34 protein is expressed in various tissues, including heart, brain, lung, liver, kidney, spleen, thymus, testes, ovary, small intestine, prostate, and colon, and most abundant in the spleen. The colony-stimulating factor 1 receptor (CSF-1R) is identified as the receptor for IL-34. IL-34 increases the growth or survival of immune cells known as monocytes. Besides, IL-34 promoted the formation of the colony-forming unit-macrophage (CFU-M), a macrophage progenitor, in human bone marrow cultures.

Reference

Lin H, et al. (2008) Discovery of a cytokine and its receptor by functional screening of the extracellular proteome. *Science*. 320(5877): 807-11.

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