**DESCRIPTION**

Source

Mouse myeloma cell line, NS0-derived human IL-34 protein

Asn21-Pro242, with a C-terminal 6-His tag

Accession # NP_689669

N-terminal Sequence

Asn21

Predicted Molecular Mass

26.1 kDa

**SPECIFICATIONS**

SDS-PAGE

35-38 kDa, reducing conditions

Activity


The ED$_{50}$ for this effect is 0.75-3.75 ng/mL.

Endotoxin Level

<0.10 EU per 1 μg of the protein by the LAL method.

Purity

>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation

Lyophilized from a 0.2 μm filtered solution in PBS and NaCl. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

Reconstitution

Reconstitute at 100 μg/mL in sterile PBS.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & 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 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**DATA**

**Bioactivity**

Bioactivity of Human IL-34

Recombinant human IL-34 (Catalog # 5265-IL/CF) induces proliferation in human peripheral blood monocytes. The ED$_{50}$ for this effect is 0.75-3.75 ng/mL.

**BACKGROUND**

Interleukin 34 (IL-34; also known as uncharacterized protein C16orf77) is secreted as a homodimer consisting of 39 kDa monomers (1). It belongs to no known cytokine family. Human IL-34 is synthesized as a 242 amino acid (aa) precursor that contains a 20 aa signal sequence and a 222 aa mature chain. The mature chain contains one potential site of N-linked glycosylation. Human IL-34 is 71% identical to mouse IL-34 on the amino acid level (1). IL-34 is expressed in various tissues, including the heart, brain, liver, kidney, spleen, thymus, testes, ovary, small intestine, prostate, and colon, and is most abundant in the spleen (1). The receptor for IL-34 is colony-stimulating factor 1 receptor (CSF-1R) (1). IL-34 stimulates monocyte proliferation (1). In functional studies, IL-34, like CSF-1, the other ligand for CSF-1R, stimulated phosphorylation of extracellular signal-regulated kinase-1 and -2 (ERK1/2) in human monocytes (1). In addition, IL-34 promoted the formation of the colony-forming unit-macrophage (CFU-M), a macrophage progenitor, in human bone marrow cultures (1).

References:


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**Recombinant Human IL-34**

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