**DESCRIPTION**

Source: Mouse myeloma cell line, NS0-derived
Asn21-Pro242, with a C-terminal 6-His tag
Accession # NP_689669

N-terminal Sequence Analysis: Asn21

Predicted Molecular Mass: 26.1 kDa

**SPECIFICATIONS**

The ED₅₀ 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 with BSA as a carrier protein. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

Reconstitution: Reconstitute at 100 μg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

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 ºC as supplied.
- 1 month, 2 to 8 ºC under sterile conditions after reconstitution.
- 3 months, -20 to -70 ºC under sterile conditions after reconstitution.

**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: