**Product Description**

Interleukin 19 (IL-19) is a member of the IL-10 cytokine family and is produced by keratinocytes, B cells, and monocytes (Romer et al.; Wolk et al.). Expression of IL-19 can be induced by granulocyte-macrophage colony-stimulating factor (GM-CSF) or lipopolysaccharide (LPS; Gallagher et al.). IL-19 is considered to be a proinflammatory cytokine, as it upregulates IL-6 and tumor necrosis factor alpha (TNF-α; Liao et al. 2002). IL-19 binds the IL-20 receptor complex (IL-20R) which comprises IL-20R alpha and IL-20R beta to activate the STAT3 pathway (Dumoutier et al.). IL-19 also induces T-helper cell differentiation towards a Th2 response, resulting in the production of IL-10 and additional IL-19 (Liao et al. 2002; Liao et al. 2004). IL-19 has been implicated in aging, vascular disease, Type I diabetes, and rheumatoid arthritis.

**Product Information**

- **Alternative Names:** IL-10C, Interleukin-19, MDA1, Melanoma differentiation-associated protein-like protein, NG.1, ZMDA1
- **Accession Number:** Q8CJ70
- **Amino Acid Sequence:** MLRRCLISVD MRLIEKSFHE IKRAMQT KDFT FKNVTLISLE NLRSIKPGDV CCMTNNLLTF YRDRVFQDHQ ERSLEVLRRI SSIANSFLCV QKSLERCQVH RQCNCSEQEAT NATRIIHNDNY NQLEVSSAAL KSLGELNILL AWIDRNHLET PAA
- **Predicted Molecular Mass:** 17.7 kDa
- **Species:** Mouse
- **Cross Reactivity:** Reported to be species-specific
- **Formulation:** Lyophilized after dialysis against acetic acid.
- **Source:** E. coli

**Specifications**

- **Activity:** The specific activity is ≥ 2.0 x 10^4 units/mg (EC50 ≤ 50 ng/mL) as determined by a cell proliferation assay using MCF-7 cells.
- **Purity:** ≥ 95%
- **Endotoxin Level:** Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/μg protein.

**Preparation and Storage**

- **Storage:** Store at -80°C.
- **Stability:** Stable as supplied for 12 months from date of receipt.
- **Preparation:** Centrifuge vial before opening. Reconstitute the product in 50 mM acetic acid to at least 0.05 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 2 weeks or at -20°C for more than 3 months. Avoid repeated freeze-thaw cycles.
Data

(A) The biological activity of Mouse Recombinant IL-19 was tested by its ability to promote the proliferation of MCF-7 cells. Cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the cytokine at which cell proliferation is at 50% of maximum. The EC50 in the example above is less than 50 ng/mL.

(B) 2 μg of Mouse Recombinant IL-19 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Mouse Recombinant IL-19 has a predicted molecular mass of 17.7 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References


