Recombinant Human IL-20

Catalog Number: 1102-IL/CF

DESCRIPTION

Source	*E. coli*-derived human IL-20 protein Leu25-Glu176, with an N-terminal Met Accession # AAF36679
N-terminal Sequence Analysis	Met
Predicted Molecular Mass	17.6 kDa

SPECIFICATIONS

Activity	Measured in a cell proliferation assay using BaF3 mouse pro-B cells transfected with human IL-20 Rα and human IL-20 Rβ. The ED_{50} for this effect is 0.05-0.3 ng/mL.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. 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.

BACKGROUND

Human Interleukin 20 (IL-20) was identified by searching sequence databases for translated sequences containing a signal sequence and amphipathic helices found in helical cytokines. Human IL-20 is synthesized as a 176 amino acid (aa) precursor with a 24 aa signal sequence and a 152 aa mature segment. There are no N-linked glycosylation sites and it is doubtful that the native molecule is glycosylated. Although IL-20 is a distant member of the IL-10 family, it functions as a monomer. IL-20 shares less than 40% aa sequence identity with other IL-10 family members. Mouse and human IL-20 share 77% aa sequence identity in their mature segments. Human IL-20 is active on mouse cells. IL-20 production has been found in skin and trachea. In particular, activated keratinocytes and, possibly, monocytes are reported to express IL-20. There are two heterodimeric receptor complexes for IL-20. The first is composed of IL-20 Rα andIL-20 Rβ. The second is composed of IL-22 R and IL-20 Rβ. Whereas the IL-22 R/IL-20 Rβ complex is shared with IL-24/mda-7, the IL-20 Rα/IL-20 Rβ complex is shared with both IL-19 and IL-24. Little is known about the function of IL-20. It is reported to induce the proliferation of multipotential hematopoietic progenitor cells, direct the differentiation and expansion of keratinocytes, and promote the release of proinflammatory mediators in keratinocytes and other IL-20 receptor expressing cells (1 - 6).

References:

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