# Recombinant Mouse IL-20

Catalog Number: 1204-ML

## DESCRIPTION

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| **Source** | *E. coli*-derived<br>Leu25-Leu176, with an N-terminal Met<br>Accession # Q9JKV9.1 |
| **N-terminal Sequence Analysis** | Met |
| **Predicted Molecular Mass** | 17.7 kDa |

## SPECIFICATIONS

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| **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 typically 0.5−2.5 ng/mL. |
| **Endotoxin Level** | <0.10 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 $NaH_2PO_4$ and NaCl with BSA as a carrier protein. See Certificate of Analysis for details. |

## PREPARATION AND STORAGE

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| **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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 3 months, 2 to 8 °C under sterile conditions after reconstitution. |

## BACKGROUND

Mouse Interleukin 20 (IL-20) was identified by searching sequence databases for translated sequences with a signal sequence and amphipathic helices found in helical cytokines. Based on the human molecule, mouse IL-20 was discovered in a skin library. Mouse IL-20 is synthesized as a 176 amino acid (aa) precursor that contains 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 are 77% aa identical in the mature segment. 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 complex is composed of IL-20 Rα and IL−20 Rβ. The second complex 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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