

## Recombinant Mouse Interleukin 20

**Cat. No.** IL20-74M    **Lot. No.** (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant Mouse Interleukin-20 produced in <i>E. Coli</i> is a single, non-glycosylated polypeptide chain containing 152 amino acids and having a total molecular mass of 17,584 Dalton. The IL-20 is purified by proprietary chromatographic techniques.                                                                                                                                                |
| <b>Species</b>             | Mouse                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>         | IL20 is a cytokine structurally related to interleukin 10 (IL10). IL20 cytokine has been shown to transduce its signal through signal transducer and activator of transcription 3 (STAT3) in keratinocytes. A specific receptor for this cytokine is found to be expressed in skin and upregulated dramatically in psoriatic skin, suggesting a role for this protein in epidermal function and psoriasis. |
| <b>Amino Acid Sequence</b> | The sequence of the first five N-terminal amino acids was determined and was found to be Met-Leu-Lys-Thr-Leu.                                                                                                                                                                                                                                                                                              |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>              | Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.                                                                                                                                                                                                                                                                                                                    |
| <b>Formulation</b>         | Lyophilized from a concentrated (1 mg/ml) solution containing no additives.                                                                                                                                                                                                                                                                                                                                |
| <b>Solubility</b>          | It is recommended to reconstitute the lyophilized Interleukin-20 in sterile 18 MΩ-cm                                                                                                                                                                                                                                                                                                                       |

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|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | H2O not less than 100 g/ml, which can then be further diluted to other aqueous solutions.                                                                                                                                                                                                                                                                                                   |
| <b>Specific Activity</b> | The biological activity was determined by measuring the dose dependent activation of STAT3 in human epidermal keratinocytes (HEK2a cells). Significant STAT3 activation is observed with >100 ng/mL of Interleukin-20 recombinant mouse.                                                                                                                                                    |
| <b>Protein Content</b>   | Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.552 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of IL-20 as a Reference Standard. |
| <b>Stability</b>         | Lyophilized Interleukin-20 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL20 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.                                               |

## GENE INFORMATION

|                       |                                                                         |
|-----------------------|-------------------------------------------------------------------------|
| <b>Gene Name</b>      | IL20 interleukin 20 [ <i>Mus musculus</i> ]                             |
| <b>Synonyms</b>       | IL20; interleukin 20; Zcyto10; MGC130536; four helix bundle cytokine 10 |
| <b>Gene ID</b>        | 58181                                                                   |
| <b>mRNA Refseq</b>    | NM_021380                                                               |
| <b>Protein Refseq</b> | NP_067355                                                               |

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|---------------------|----------------------------------------------------------------------|
| UniProt ID          | Q9JKV9                                                               |
| Chromosome Location | 1 E4                                                                 |
| Pathway             | Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway   |
| Function            | cytokine activity; interleukin-20 receptor binding; receptor binding |

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