

## IL-20 Protein, Rat, Recombinant

### General Information

Synonyms:	interleukin 20
Protein Construction:	A DNA sequence encoding the rat IL20 (P11762) (Leu25-Leu176) was expressed and purified. Predicted N terminal: Leu 25
Species:	Rat
Expression Host:	E. coli
Accession:	P11762
Molecular Weight:	17.7 kDa (predicted); 17 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Supplied as sterile PBS, 20% Glycerol, pH 7.4.

### Preparation and Storage

#### Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

#### Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

Proteins are shipped with blue ice.

### Protein Background

IL20/Interleukin-20 belongs to the IL-10 family. It is a cytokine structurally related to interleukin 10. IL20/Interleukin-20 can be detected in skin, trachea, and other tissues. It is produced by activated keratinocytes and monocytes and transmits an intracellular signal through two distinct cell-surface receptor complexes on keratinocytes and other epithelial cells. It has been shown that interleukin-20 transduces its signal through signal transducer and activator of transcription 3 (STAT3) in keratinocytes. It may be involved in epidermal function and psoriasis. It also regulates the proliferation and differentiation of keratinocytes during inflammation, particularly inflammation associated with the skin. Also, IL20/Interleukin-20 also causes cell expansion of multipotential hematopoietic progenitor cells. 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.

### Reference

Chen XY, et al. (2011) The association between the IL-20-1723CG allele on the 1q chromosome and psoriasis triggered or exacerbated by an upper respiratory tract infection in the Chinese Han population. *Dermatology*. 222 (1):24-30.

Baird AM, et al. (2011) IL-20 is epigenetically regulated in NSCLC and down regulates the expression of VEGF. *Eur J Cancer*. 47(12):1908-18.

Logsdon NJ, et al. (2012) Purification, crystallization and preliminary X-ray diffraction analysis of the IL-20-IL-20R1-IL-20R2 complex. *Acta Crystallogr Sect F Struct Biol Cryst Commun*. 68(Pt 1):89-92.

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