



Recombinant Protein Technical Manual  
Recombinant Human Interleukin-20/IL-20 Protein  
RPES2188

#### Product Data:

**Product SKU:** RPES2188

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q9NYY1

#### Protein Information:

**Molecular Mass:** 20.1 kDa

**AP Molecular Mass:** 17 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Interleukin-20; IL-20; Cytokine Zcyto10; IL20; ZCYTO10

## Immunogen Information:

**Sequence:** Leu25-Glu176

## Background:

Interleukin-20 (IL-20) is a member of the IL0 family of regulatory cytokines that includes IL0, IL9, IL-20, IL-22, IL-24 and IL-26. Members of this family share partial homology in their amino acid sequences but they are dissimilar in their biological functions. IL-20 exhibits approximately 28% amino acid identity with IL0 and 76% amino acid identity with mouse IL-20. There are two heterodimeric receptor complexes for IL-20. The first is composed of IL-20 R $\alpha$  and IL-20 R $\beta$ . The second is composed of IL-22 R and IL-20 R $\beta$ . Whereas the IL-22 R/IL-20 R $\beta$  complex is shared with IL-24, the IL-20 R $\alpha$ /IL-20 R $\beta$  complex is shared with both IL9 and IL-24. IL-20 has been shown to initiate transduction cascades involving STAT3 and stimulates the induction of pro-inflammatory genes including TNF- $\alpha$  and MCP. Initial functional studies using transgenic mice suggest that IL-20 has the ability to regulate skin development. The over-expression of both human and mouse forms of IL-20 results in keratinocyte hyper-proliferation, abnormal epidermal differentiation, and neonatal lethality. In humans, IL-20 and its receptors are up-regulated in psoriatic skin, and polymorphisms in the IL-20 gene have been associated with plaque-type psoriasis. IL-20 may also have a role in hematopoiesis. It enhances the proliferation of multi-potential progenitors in vitro and increases their numbers and cell cycling status in IL-20 transgenic mice. IL-20 is also shown to suppress COX-2 and PGE2 and acts as an inhibitor of angiogenesis in model systems.