

## Recombinant Human Interleukin-20/IL-20 Protein

**Catalog No.** PKSH032630

*Note:* Centrifuge before opening to ensure complete recovery of vial contents.

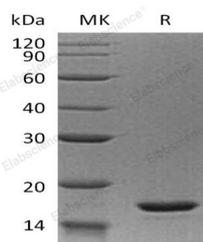
### Description

<b>Synonyms</b>	Interleukin-20;IL-20;Cytokine Zcyto10;IL20;ZCYTO10
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Leu25-Glu176
<b>Accession</b>	Q9NYY1
<b>Calculated Molecular Weight</b>	18.5 kDa
<b>Observed molecular weight</b>	16 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Measure by its ability to chemoattract BaF3 cells transfected with human IL-20R alpha and IL-20R beta. The ED <sub>50</sub> for this effect is < 0.2 ng/mL.

### Properties

<b>Purity</b>	> 98 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS,pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



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### Background

Interleukin-20 (IL-20) is a member of the IL-10 family of regulatory cytokines that includes IL-10, IL-19, IL-20, IL-22,

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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 IL-10 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 IL-19 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-1. 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.