

## IL-20R beta Protein, Human (sf9, His)

<b>Cat. No.:</b>	HY-P76428
<b>Synonyms:</b>	Interleukin-20 receptor subunit beta; IL-20R-beta; IL-20RB; FNDC6; IL-20R2; DIRS1
<b>Species:</b>	Human
<b>Source:</b>	Sf9 insect cells
<b>Accession:</b>	Q6UXL0 (M1-A230)
<b>Gene ID:</b>	53833
<b>Molecular Weight:</b>	Approximately 23.9 kDa.

### PROPERTIES

<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.0, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>IL-20R beta (IL-12RB), also known as a beta subunit of IL-20 receptor (IL-20RB), belongs to the type II cytokine receptor family. IL-20R beta is widely expressed with highest levels in skin and testis and highly expressed in psoriatic skin<sup>[1]</sup>. IL-20R beta forms functional heterodimers with different subunit protein. IL-20R beta serves as the receptor for IL-19, IL-20 and IL-24 by dimerizing with IL20RA, however serves as the receptor for IL-20 and IL-24 by dimerizing with IL-22RA1<sup>[2]</sup>. IL-20RB/IL-20RA and IL-20RB/IL-22RA1, act function by binding IL-20, and then stimulates a signal transduction pathway through STAT3 in a keratinocyte cell line<sup>[1]</sup>. However, the expression of both IL-20RB/IL-20RA is found to be upregulated in psoriatic skin lesions on keratinocytes<sup>[3]</sup>. IL-20RB/IL-20RA and IL-20RB/IL-22RA1 bind to IL-24, induce rapid activation of Stat-1 and Stat-3 transcription factors, which appear to play a role in cell survival and proliferation<sup>[4]</sup>. The sequence of amino acids in IL-12 beta proteins of human is very different from mouse (64.64%).</p>
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### REFERENCES

[1]. Blumberg H, et al. Interleukin 20: discovery, receptor identification, and role in epidermal function. Cell. 2001 Jan 12;104(1):9-19.

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- [2]. Wegenka UM. IL-20: biological functions mediated through two types of receptor complexes. Cytokine Growth Factor Rev. 2010 Oct;21(5):353-63.
- [3]. Sheikh F, et al. Cutting edge: IL-26 signals through a novel receptor complex composed of IL-20 receptor 1 and IL-10 receptor 2. J Immunol. 2004 Feb 15;172(4):2006-10.
- [4]. Wang M, et al. Interleukin-24 and its receptors. Immunology. 2005 Feb;114(2):166-70.
- [5]. Chada S, et al. Bystander activity of Ad-mda7: human MDA-7 protein kills melanoma cells via an IL-20 receptor-dependent but STAT3-independent mechanism. Mol Ther. 2004 Dec;10(6):1085-95.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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