Proteins



Product Data Sheet

IL-20R beta Protein, Cynomolgus (HEK293, His)

Cat. No.: HY-P77422

Synonyms: Interleukin-20 receptor subunit beta; IL-20R-beta; IL-20RB; FNDC6; IL-20R2; DIRS1

Species: Cynomolgus HEK293 Source:

XP_005545913.1 (D30-A230) Accession:

Gene ID: 102119675

Molecular Weight: Approximately 29-35 kDa due to the glycosylation

PROPERTIES

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AA	-	മവ	11	ΔI	n	\sim

DEVAILPAPQ NLSVLSTNMK HLLMWSPVTV PGETVYYSVE YQGEYESLYT SHIWIPSSWC SLTEGPECDV TDDITATVPY NLRVRATLGS QTSAWSILKH PFNRNSTILT PPGMEITKDG FHLVIELEDL GPQFEFLVAY WRREPGAEEH VKMVRSGGIP VHLETMEPGA AYCVKAQTFV KAIGRYSAFS QTECVEVQGE

Biological Activity

Measured by its binding ability in a functional ELISA. Immobilized Human IL-19, at 0.1 µg/mL (100 µL/well) can bind IL-20R beta. The ED₅₀ for this effect is 38.15 ng/mL.

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than $100 \, \mu g/mL$ in ddH_2O . For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

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.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

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^[1]. 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^[2]. 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^[1].

However, the expression of both IL-20RB/IL-20RA is found to be upregulated in psoriatic skin lesions on keratinocytes^[3]. 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^[4].

REFERENCES

- [1]. Blumberg H, et al. Interleukin 20: discovery, receptor identification, and role in epidermal function. Cell. 2001 Jan 12;10 4(1):9-19.
- [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.

Caution: Product has not been fully validated for medical applications. For research use only.

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