

IL-23R Protein, Human (353a.a, HEK293, Fc)

Cat. No.:	HY-P73196
Synonyms:	Interleukin 23 receptor; IL 23R; IL-23 receptor; IL-23R
Species:	Human
Source:	HEK293
Accession:	AAM44229.1 (G24-D353)
Gene ID:	149233
Molecular Weight:	Approximately 88.18 kDa

PROPERTIES

AA Sequence

G I T N I N C S G H	I W V E P A T I F K	M G M N I S I Y C Q	A A I K N C Q P R K
L H F Y K N G I K E	R F Q I T R I N K T	T A R L W Y K N F L	E P H A S M Y C T A
E C P K H F Q E T L	I C G K D I S S G Y	P P D I P D E V T C	V I Y E Y S G N M T
C T W N A G K L T Y	I D T K Y V V H V K	S L E T E E E Q Q Y	L T S S Y I N I S T
D S L Q G G K K Y L	V W V Q A A N A L G	M E E S K Q L Q I H	L D D I V I P S A A
V I S R A E T I N A	T V P K T I I Y W D	S Q T T I E K V S C	E M R Y K A T T N Q
T W N V K E F D T N	F T Y V Q Q S E F Y	L E P N I K Y V F Q	V R C Q E T G K R Y
W Q P W S S L F F H	K T P E T V P Q V T	S K A F Q H D T W N	S G L T V A S I S T
G H L T S D N R G D			

Biological Activity

1. Measured by its binding ability in a functional ELISA. Immobilized human IL23A-His+IL12B-His at 10 µg/mL (100 µl/well) can bind human IL23R-Fc and the EC₅₀ is 0.28-0.66 µg/mL.
2. Measured by its binding ability in a functional ELISA. Immobilized mouse IL12Bh (m)+mIL23Ah at 10 µg/mL (100 µl/well) can bind human IL23R-Fc. The EC₅₀ of human IL23R-Fc is 0.14-0.35 µg/mL.
3. Measured in a cell proliferation assay using M-NFS-60 cells. The ED₅₀ this effect is 0.9517 µg/mL, corresponding to a specific activity is 1.05×10³ units/mg in the presence of 0.125 ng/mL of recombinant human G-CSF.
4. Measured by its ability to inhibit IL-23 induced IL-17 secretion by Jurkat cells. The ED₅₀ for this effect is 0.03289 µg/mL in the presence of 1 ng/mL IL-23, corresponding to a specific activity is 3.04×10⁴ U/mg.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. 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**

Interleukin-23 receptor (IL-23R) plays a critical role in immune response as it forms the interleukin-23 receptor by associating with IL12RB1. It binds to IL23 and triggers the activation of T-cells, NK cells, and potentially certain macrophage/myeloid cells through the Jak-Stat signaling cascade. IL23 is involved in both innate and adaptive immunity, and it likely contributes to the acute response to infection in peripheral tissues. Moreover, IL23 is implicated in autoimmune inflammatory diseases and has been shown to be important in tumorigenesis. When IL12RB1 is present, IL-23R forms a heterodimer, which acts as the IL-23 receptor. It interacts with JAK2 and, in the presence of IL23, activates STAT3. IL23/IL-23R promotes T helper 1 and T helper 17 cell differentiation and proinflammatory cytokine secretion, thereby increasing host bactericidal activity^{[1][2][3]}.

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

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