

IL-15R alpha & IL-15 Protein, Human (HEK293, His)

Cat. No.:	HY-P77699
Synonyms:	IL-15 R alpha; CD215; IL15RA; IL-15RA; IL-15R-alpha1; Interleukin-15; IL-15; IL15
Species:	Human
Source:	HEK293
Accession:	Q13261-1 (I31-S108)&P40933-1 (N49-S162)
Gene ID:	3601&3600
Molecular Weight:	Approximately 26-28&30-32 kDa

PROPERTIES

AA Sequence	<pre> I T C P P P M S V E H A D I W V K S Y S L Y S R E R Y I C N S G F K R K A G T S S L T E C V L N K A T N V A H W T T P S L K C I R D P A L V H Q R P A P P S G G S G G G G S G G G S G G G G S G G N W V N V I S D L K K I E D L I Q S M H I D A T L Y T E S D V H P S C K V T A M K C F L L E L Q V I S L E S G D A S I H D T V E N L I I L A N N S L S S N G N V T E S G C K E C E E L E E K N I K E F L Q S F V H I V Q M F I N T S </pre>
Biological Activity	<p>1. Immobilized Human IL-15RA&IL-15, His Tag at 1 µg/mL (100µL/Well) on the plate. Dose response curve for Human IL-2 R beta&IL-2 R gamma, hFc Tag with the EC₅₀ of 0.019-0.11 µg/ml determined by ELISA.</p> <p>2. Measured in a cell proliferation assay using NK92 cells. The ED₅₀ for this effect is 0.2678 ng/mL, corresponding to a specific activity is 3.734×10⁶ units/mg.</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
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 ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years from date of receipt. 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-15R alpha is expressed on various cell types, including lymphocytes, myeloid cells, nonlymphoid and nonhematopoietic
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cells^[4]. IL-15 is produced in macrophages and dendritic cells^[1].

IL-15R alpha is required for transporting of IL-15 from the endoplasmic reticulum to the cell surface to bind with β (CD122) and γ (CD132) chains on responding lymphocytes^{[4][5]}. When binding with IL-15, the complex increases the in vivo half-life of IL-15 and enhances binding affinity of IL-15 with IL-15R β/γ in NK cells and CD8+ T cells. Thus, the signal transmission improves proliferation and antitumor activities of NK cells and CD8+ T cells^[2].

IL-15R alpha forms complex with IL-15 and activates the antitumor functions of NK cells and CD8+ T cells. IL-15R alpha/IL-15 complex is a potential immunotherapeutic agent for cancer and viral infection^[1].

REFERENCES

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

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