

## IL-15R alpha & IL-15 Fusion Protein, Human (HEK293, Fc)

<b>Cat. No.:</b>	HY-P70655
<b>Synonyms:</b>	IL15RA& IL15; Interleukin-15; IL-15; IL15; IL-15 receptor subunit alpha; IL-15RA; IL-15R-alpha; interleukin-15 receptor subunit alpha
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q13261 (I31-D96)&P40933 (N49-S162, N120D)
<b>Gene ID:</b>	3601&3600
<b>Molecular Weight:</b>	50-60 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>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</p> <p>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> <p>&amp; :</p> <p>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</p> <p>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 D S L S S N G N V</p> <p>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</p>
<b>Biological Activity</b>	<p>1. The cell proliferation assay using CTLL-2 mouse cytotoxic T cells has an ED<sub>50</sub> value of 5-20 ng/mL.</p> <p>2. Measured by its ability to block human IL-15-induced proliferation of CTLL-2 mouse cytotoxic T cells. The ED<sub>50</sub> this effect is 0.2169 ng/mL in the presence of 0.5 ng/mL recombinant human IL-15, corresponding to a specific activity is 4.61×10<sup>6</sup> units/mg.</p>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 8% Trehalose, 4% Mannitol, 0.02% Tween80 (w/v), pH 7.5. or 20 mM PB, 150 mM NaCl, pH 7.4.
<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. 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>	IL-15R alpha is expressed on various cell types, including lymphocytes, myeloid cells, nonlymphoid and nonhematopoietic
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cells<sup>[4]</sup>. IL-15 is produced in macrophages and dendritic cells<sup>[1]</sup>.

IL-15R alpha is required for transporting of IL-15 from the endoplasmic reticulum to the cell surface to bind with  $\beta$  (CD122) and  $\gamma$  (CD132) chains on responding lymphocytes<sup>[4][5]</sup>. 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 $\beta/\gamma$  in NK cells and CD8+ T cells. Thus, the signal transmission improves proliferation and antitumor activities of NK cells and CD8+ T cells<sup>[2]</sup>.

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<sup>[1]</sup>.

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## REFERENCES

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