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

Cat. No.:	HY-P78468
Synonyms:	IL-15 R alpha; CD215; IL-15RA; MGC104179
Species:	Human
Source:	HEK293
Accession:	Q13261 (I31-T205)
Gene ID:	3601
Molecular Weight:	50-70 kDa

PROPERTIES

Biological Activity	Immobilized Human IL-15 at 1μg/ml (100μl/Well) on the plate. Dose response curve for Human IL-15RA, His Tag with the EC_{50} of 12.1ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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-15R alpha is expressed on various cell types, including lymphocytes, myeloid cells, nonlymphoid and nonhematopoietic cells[4]. IL-15R alpha is down-regulated in Epstein-Barr virus associated gastric cancer (EBVaGC) via promoter hypermethylation[5].

The sequence of amino acids in IL-15R alpha differs in different species. Human IL-15R alpha shares <55% aa sequence identity with mouse.

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][6]. 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-15Rβ/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]. Moreover, IL-15R alpha on the cancer cell surface induces the malignant phenotype, such as augmented cancer cell growth, migration and invasion, and decreased apoptosis[5].

IL-15R alpha binds with IL-15 and activates the antitumor functions of NK cells and CD8+ T cells, and is also important in

memory CD8 T cell homeostasis and lymphocyte development[2][3].

REFERENCES

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