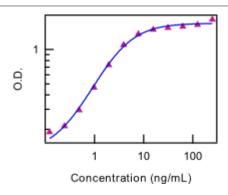


An Affymetrix Company

# Mouse IL-15/IL-15R Complex Recombinant Protein

Catalog Number: 14-8152

Also known as: Interleukin 15, IL15, IL-15 receptor, receptor/ligand complex RUO: For Research Use Only. Not for use in diagnostic procedures.



Proliferation of CTLL-2 cells in response to Mouse IL-15/IL-15R Complex Recombinant Protein.

#### **Product Information**

**Contents:** Mouse IL-15/IL-15R Complex Recombinant Protein

Recombinant Protein

REF Catalog Number: 14-8152

**Handling Conditions:** For best recovery, quick-spin vial prior to opening. Use in a

sterile environment

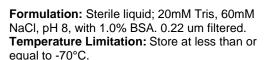
**Source:** Insect cell expressed N-terminal His-Tagged mlL-15Ra Gly33-Ala132 accession # NP 032384 - GS linker - mlL-15 Asn49-

Ser162 accession # NP\_032383 Molecular Mass: 29.4 kDa

**Purity:** > 98%, as determined by SDS-PAGE. **Endotoxin:** Less than 0.1 ng/ug cytokine as

determined by the LAL assay.

**Bioactivity:** The ED50 of this protein, as measured by CTLL-2 cell proliferation assay, is less than or equal to 4 ng/mL. This corresponds to a specific activity of greater than or equal to 2.5 x 10e5 Units/mg.





Batch Code: Refer to vial Use By: Refer to vial

### Description

This recombinant protein is the heterocomplex of the mouse IL-15 linked to soluble IL-15 receptor alpha chain (sushi domain) via a GS linker.

Interleukin 15 (IL-15) is a cytokine that stimulates T and NK cell proliferation and differentiation. IL-15 regulates macrophage proinflammatory and chemotactic protein production. In addition, it induces differentiation of monocytes towards dendritic cells. The receptor for IL-15 is a high affinity heterotrimeric receptor composed of IL-15Rα and 2 additional subunits of the IL-2 receptor (beta and gamma). Upon activation, the receptor complex signals via the Stat and JAK pathways.

It has been reported that the soluble form of IL-15Rα corresponding to the entire extracellular domain, cleaved by MMP's, behaves as a high affinity IL-15 antagonist, whereas the recombinant extracellular domain comprised of the sushi domain together with the ligand, IL-15, behaves as a potent agonist by enhancing binding of IL-15 to the receptor complex. In fact, this receptor-ligand complex has approximately 10-100 fold increased proliferative activity.

## **Applications Reported**



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Recombinant mouse IL-15/IL-15RA complex is biologically active.

#### **Applications Tested**

The ED50 of this protein, as measured by CTLL-2 cell proliferation assay, is less than or equal to 4 ng/mL. This corresponds to a specific activity of greater than or equal to 2.5 x 10e5 Units/mg.

#### References

Mortier E, Quéméner A, Vusio P, Lorenzen I, Boublik Y, Grötzinger J, Plet A, Jacques Y. Soluble interleukin-15 receptor alpha (IL-15R alpha)-sushi as a selective and potent agonist of IL-15 action through IL-15R beta/gamma. Hyperagonist IL-15 x IL-15R alpha fusion proteins. J Biol Chem. 2006 Jan 20;281(3):1612-9.

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Vamosi G, Bodnar A, Vereb G, Jenei A, Goldman CK, Langowski J, Toth K, Matyus L, Szollosi J, Waldmann TA, Damjanovich S. IL-2 and IL-15 receptor alpha-subunits are coexpressed in a supramolecular receptor cluster in lipid rafts of T cells. Proc Natl Acad Sci U S A. 2004 Jul 27;101(30):11082-7.

Dubois S, Mariner J, Waldmann TA, Tagaya Y. IL-15Ralpha recycles and presents IL-15 In trans to neighboring cells. Immunity. 2002 Nov;17(5):537-47.

### **Related Products**

34-8151 Mouse IL-15 Recombinant Protein Carrier-Free 34-8152 Mouse IL-15/IL-15R Complex Recombinant Protein Carrier-Free