Recombinant mouse IL15

Catalog No: #AG0041

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Description

Product Name	Recombinant mouse IL15
Host Species	HEK293
Purification	> 95% by Tris-Bis PAGE;> 95% by SEC-HPLC
Immunogen Description	Asn49-Ser162
Target Name	IL15
Other Names	Mouse IL15; mIL-15; IL-15MGC9721; interleukin 15; interleukin-15
Accession No.	Uniprot:P48346Gene ID:16168
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GeneID	16168
Target Species	mouse
Calculated MW	13.3 KDa
Tag Info	addtional amino acid free
Formulation	0.22 μm filtered solution of PBS, pH 7.4.
Storage	Aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Background

Interleukin 15 (IL-15) is a widely expressed 14 kDa cytokine that is structurally and functionally related to IL-2 and plays an important role in many immunological diseases (1, 2). Mature mouse IL-15 shares 70% and 96% amino acid sequence identity with human and rat IL-15, respectively. IL-15 binds with high affinity to IL?15 R alpha (3). It binds with lower affinity to a complex of IL?2 R beta and the common gamma chain (gamma c) which are also subunits of the IL-2 receptor complex (4). IL-15 associates with IL-15 R alpha in the endoplasmic reticulum, and this complex is expressed on the cell surface (5). The dominant mechanism of IL-15 action is known as transpresentation in which IL-15 and IL-15 R alpha are coordinately expressed on the surface of one cell and interact with complexes of IL-2 R beta / gamma c on adjacent cells (6). This enables cells to respond to IL-15 even if they do not express IL-15 R alpha (5). In human and mouse, soluble IL-15-binding forms of IL-15 R alpha can be generated by proteolytic shedding and bind up nearly all the IL-15 in circulation (7-9). Soluble IL-15 R alpha functions as an inhibitor that limits IL-15 action (3, 8). Ligation of membrane?associated IL-15/IL-15 R alpha complexes also induces reverse signaling that promotes activation of the IL-15/IL-15 R alpha expressing cells (10). IL-15 induces or enhances the differentiation, maintenance, or activation of multiple T cell subsets including NK, NKT, Th17, Treg, and CD8+ memory cells (11-15). An important component of these functions is the ability of IL-15 to induce dendritic cell differentiation and inflammatory activation (10, 13). IL-15 exhibits anti-tumor activity independent of its actions on NK cells or CD8+ T cells (16). It also inhibits the deposition of lipid in adipocytes, and its circulating levels are decreased in obesity (17).

Note: This product is for in vitro research use only