

## Recombinant mouse IL15

Catalog No: #AG0041

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

## 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; mL-15; IL-15MGC9721; interleukin 15; interleukin-15 |
| Accession No.         | Uniprot:P48346Gene ID:16168                                     |
| Uniprot               | P48346  |
| GeneID                | 16168   |
| Target Species        | mouse   |
| Calculated MW         | 13.3 KDa  |
| Tag Info              | additional 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