

# Mouse IL-12 p70 Recombinant Protein, eBioscience™

Product Details	
Size	25 µg
Species	Mouse
Expression System	Insect
Amino acid sequence	Heterodimeric, p40, amino acids Met23-Ser335, cystine linked to p35, amino acids Arg23-Ala215
Molecular weight	70 kDa
Class	Recombinant
Type	Protein
Purity	>98%, by SDS-PAGE
Endotoxin concentration	<0.01 ng/µg
Activity	ED50 < 175 pg/mL; determined by IFN-gamma induction in mouse splenocytes.
Conjugate	Unconjugated
Form	Liquid
Concentration	0.1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 6.0, with 1% BSA
Contains	no preservative
Storage conditions	-80°C

Applications	Tested Dilution	Publications
ELISA (ELISA)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	-
Control (Ctrl)	Assay-Dependent	-
Miscellaneous PubMed (Misc)	-	12 Publications

## Product Specific Information

Description: Interleukin-12 (IL-12) is a heterodimeric 70 kD (p70) cytokine composed of two covalently linked, glycosylated chains, 40kD (p40) and 35-kD (p35). IL-12 is mainly produced by monocytes, macrophages, and dendritic cells in response to bacterial products such as lipopolysaccharides (LPS), to intracellular pathogens or upon interaction with activated T cells. IL-12 was originally discovered because of its ability to induce interferon-gamma (IFN-g) production, cell proliferation, and cytotoxicity mediated by natural killer cells and T cells. It is now established that IL-12 also plays a key role in the development of Th1 responses, leading to IFN-g and IL-2 production. These cytokines can in turn promote T-cell responses and macrophage activation.

eBioscience's recombinant mouse IL-12 p70 is produced in baculovirus-infected insect cells as an authentic heterodimer of precursor p35 and p40 subunits using a dual promoter expression system. It is distinct from other available forms of the protein in that it is expressed as a true heterodimer, as opposed to a single-chain, pseudo-heterodimer in which the subunits are joined by an artificial linker.

Applications Reported: Recombinant mouse IL-12 is biologically active and can be used as a standard for p40 or p70 ELISA.

Applications Tested: The ED50 of this protein, as measured by IFN gamma induction assay in mouse splenocytes, is less than or equal to 175 pg/mL. This corresponds to a specific activity of greater than or equal to 5.7 x 10<sup>6</sup> Units/mg.

Source: Insect cells infected with baculovirus: mouse p40, amino acids met 1-Ser 335, accession # NM\_008352 was co-expressed with mouse p35, amino acids met 1-Ala 215, accession # NM\_008351.

Bioactivity: The ED50 of this protein, as measured by IFN gamma induction assay in mouse splenocytes, is less than or equal to 175 pg/mL. This corresponds to a specific activity of greater than or equal to 5.7 x 10<sup>6</sup> Units/mg.

Endotoxin: Less than 0.01 ng/ug cytokine as determined by the LAL assay. Purity: >98% as determined by SDS-PAGE.

Molecular Weight: The heterodimeric, p40, amino acids met 23-ser 335, cystine linked to p35, amino acids arg 23-ala 215, has a predicted molecular mass of 57,496. On non-reducing SDS-PAGE the heterodimeric cystine-linked protein migrates as a 65 kDa protein. The DTT reduced protein migrates as 43 kDa and 24 kDa polypeptides.

Storage and handling: For best recovery, quick-spin vial prior to opening. Use in a sterile environment.

Purity: Greater than 98%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

## 12 References

### Miscellaneous PubMed (12)

#### Theranostics

#### Absence of GdX/UBL4A Protects against Inflammatory Diseases by Regulating NF-B Signaling in Macrophages and Dendritic Cells.

Authors: Liu C,Zhou Y,Li M,Wang Y,Yang L,Yang S,Feng Y,Wang Y,Wang Y,Ren F,Li J,Dong Z,Chin YE,Fu X,Wu L, Chang Z

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

#### Scientific reports

#### HDAC10 deletion promotes Foxp3<sup>+</sup> T-regulatory cell function.

Authors: Dahiya S,Beier UH,Wang L,Han R,Jiao J,Akimova T,Angelin A,Wallace DC,Hancock WW

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

[View more Misc references on thermofisher.com](#)

### More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.