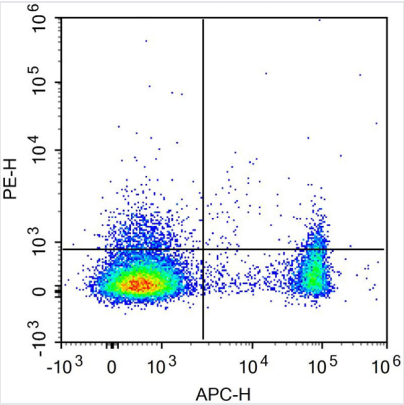
# CD127 Antibody – Rat Monoclonal

## PRODUCT OVERVIEW

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| **Product Name** | CD127, Monoclonal Antibody |
| **Full Product Name** | PE Anti-Mouse CD127 (A7R34) |
| **Product Gene Name** | anti-CD127 antibody |
| **Product Synonym Names** | Interleukin-7 receptor subunit alpha; Il7r; IL-7 receptor subunit alpha; IL-7R subunit alpha; IL-7R-alpha; IL-7RA; CD127 |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2a, kappa |
| **Clone Number** | A7R34 |
| **Host** | Rat |
| **Species Reactivity** | Mouse |
| **Form/Format** | Liquid |
| **Preparation and Storage** | PBS with 0. 1% sodium azide, 1%BSA, pH 7.3, 2-8 degree C for 12 months (Avoid repeated freeze / thaw cycles.) |
| **Molecular Weight** | 51,605 Da |
| **3D Structure** | ModBase 3D Structure for P16872 |
| **Target** | Mouse CD127 |
| **Conjugation** | PE |
| **Product Categories/Family for anti-CD127 antibody** | Flow cytometry Antibodies |
| **ISO Certification** | Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory. |
| **Applications Tested/Suitable for anti-CD127 antibody** | Flow Cytometry (FC/FACS) |
| **Application Notes for anti-CD127 antibody** | Volume per test: 5uL. Each lot of this antibody is quality control tested by flow cytometric analysis. The amount of the reagent is suggested to be used 5 uL of antibody per test (million cells in 100 uL staining volume or per 100 uL of whole blood). Please check your vial before the experiment. Since applications vary, the appropriate dilutions must be determined for individual use. |
| **Related Product Information for anti-CD127 antibody** | MBS7617745 is an antibody targeting CD127. Also known as PE Anti-Mouse CD127 (A7R34). Reactive in Mouse. Host: Rat. |
| **Other Notes** | Small volumes of anti-CD127 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |




**Flow Cytometry (FC/FACS) of anti-CD127 antibody**
BALB/c murine splenocytes are stained with PE Anti-Mouse CD127 Antibody and APC Anti-Mouse CD4 Antibody.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD127. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 341940827 |
| **NCBI GeneID** | 16197 |
| **NCBI Accession #** | P16872.2 |
| **UniProt Primary Accession #** | P16872 |
| **UniProt Secondary Accession #** | Q9R0C1 |
| **UniProt Related Accession #** | P16872 |
| **NCBI Official Full Name** | Interleukin-7 receptor subunit alpha |
| **NCBI Official Synonym Full Names** | interleukin 7 receptor |
| **NCBI Official Symbol** | Il7r |
| **NCBI Official Synonym Symbols** | CD127; IL-7Ralpha |
| **UniProt Protein Name** | Interleukin-7 receptor subunit alpha |
| **UniProt Synonym Protein Names** | CD_antigen: CD127 |
| **Protein Family** | Interleukin-7 receptor |
| **UniProt Gene Name** | Il7r |
| **UniProt Synonym Gene Names** | IL-7 receptor subunit alpha; IL-7R subunit alpha; IL-7R-alpha; IL-7RA |
| **UniProt Entry Name** | IL7RA_MOUSE |
| **NCBI Protein Information** | interleukin-7 receptor subunit alpha; IL-7RA; IL-7R-alpha; IL-7R subunit alpha; IL-7 receptor alpha chain; IL-7 receptor subunit alpha; interleukin 7 receptor alpha chain |
| **NCBI Summary for CD127** | Interleukin-7 is a glycoptorein involved in the regulation of lymphopoiesis. Response of cells to IL7 is dependent on the presence of the interleukin 7 receptor (IL7R); the active receptor is a alpha/gamma chain heterodimer. The gamma(c) chain, which also associates with the interleukin-2 receptor, serves primarily to activate signal transduction by the IL7R complex, while the alpha chain of IL7R determines specific signaling events through its association with cytoplasmic signaling molecules. [provided by RefSeq, Jul 2008] |

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| **UniProt Comments for CD127** | IL7R: Receptor for interleukin-7. Also acts as a receptor for thymic stromal lymphopoietin (TSLP). Defects in IL7R are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell- positive/NK-cell-positive (T(-)B(+)NK(+) SCID). A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. Genetic variations in IL7R are a cause of susceptibility to multiple sclerosis type 3 (MS3). A multifactorial, inflammatory, demyelinating disease of the central nervous system. Sclerotic lesions are characterized by perivascular infiltration of monocytes and lymphocytes and appear as indurated areas in pathologic specimens (sclerosis in plaques). The pathological mechanism is regarded as an autoimmune attack of the myelin sheat, mediated by both cellular and humoral immunity. Clinical manifestations include visual loss, extra-ocular movement disorders, paresthesias, loss of sensation, weakness, dysarthria, spasticity, ataxia and bladder dysfunction. Genetic and environmental factors influence susceptibility to the disease. A polymorphism at position 244 strongly influences susceptibility to multiple sclerosis. Overtransmission of the major 'C' allele coding for Thr-244 is detected in offspring affected with multiple sclerosis. In vitro analysis of transcripts from minigenes containing either 'C' allele (Thr-244) or 'T' allele (Ile-244) shows that the 'C' allele results in an approximately two-fold increase in the skipping of exon 6, leading to increased production of a soluble form of IL7R. Thus, the multiple sclerosis associated 'C' risk allele of IL7R would probably decrease membrane-bound expression of IL7R. As this risk allele is common in the general population, some additional triggers are probably required for the development and progression of MS. Belongs to the type I cytokine receptor family. Type 4 subfamily. 4 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Receptor, cytokine; Membrane protein, integral<br><br>Cellular Component: membrane; integral to membrane; external side of plasma membrane<br><br>Molecular Function: hematopoietin/interferon-class (D200-domain) cytokine receptor activity<br><br>Biological Process: positive regulation of T cell differentiation in the thymus; B cell proliferation; negative regulation of T cell mediated cytotoxicity; homeostasis of number of cells; cell morphogenesis; immunoglobulin production; cell growth; lymph node development; regulation of cell size; T cell differentiation |
| **Research Articles on CD127** | **1.** The development and survival but not function of follicular B cells is dependent on IL-7Ralpha Tyr449 signaling. |
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