SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-IL7R antibody

Catalog Number: SL1540R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	IL7R
Immunogen:	KLH conjugated synthetic peptide derived from human IL-7Ra: 251-350/459
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Dog,Pig,Cow,Horse,Sheep)
Predicted MW.:	50kDa
Subcellular Location:	The cell membrane Secretory protein
Background:	The protein encoded by this gene is a receptor for interleukine 7 (IL7). The function of this receptor requires the interleukin 2 receptor, gamma chain (IL2RG), which is a common gamma chain shared by the receptors of various cytokines, including interleukine 2, 4, 7, 9, and 15. This protein has been shown to play a critical role in the V(D)J recombination during lymphocyte development. This protein is also found to control the accessibility of the TCR gamma locus by STAT5 and histone acetylation. Knockout studies in mice suggested that blocking apoptosis is an essential function of this protein during differentiation and activation of T lymphocytes. The functional defects in this protein may be associated with the pathogenesis of the severe combined immunodeficiency (SCID). **Function:** Receptor for interleukin-7. Also acts as a receptor for thymic stromal lymphopoietin (TSLP). **Subcellular Location:** Secreted and Cell membrane. **Post-translational modifications:** N-glycosylated IL-7Ralpha binds IL7 300-

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	fold more tightly than the unglycosylated form. DISEASE: 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) [MIM:608971]. 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) [MIM:612595]. 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. Note=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. **Similarity:** Belongs to the type I cytokine receptor family. Type 4 subfamily. Contains 1 fibronectin type-III domain. **Database links:** **Entrez Gene:** 3575 Human **Entrez Gene:** 16197 Mouse **Entrez Gene:** 294797 Rat Omim: 146661 Human **SwissProt:** P16871 Human

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	SwissProt: P16872 Mouse **SwissProt:** 224662 Rat **Unigene:** 591742 Human **Unigene:** 635723 Human **Unigene:** 389 Mouse

[VALIDATION IMAGES]

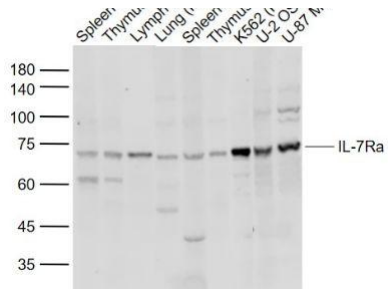


Figure 1. Sample: Lane 1: Mouse Spleen tissue lysates Lane 2: Mouse Thymus tissue lysates Lane 3: Mouse Lymph node tissue lysates Lane 4: Mouse Lung tissue lysates Lane 5: Rat Spleen tissue lysates Lane 6: Rat Thymus tissue lysates Lane 7: Human K562 cell lysates Lane 8: Human U-2 OS cell lysates Lane 9: Human U-87 MG cell lysates Primary: Anti-IL-7Ra (SL1540R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 50 kD Observed band size: 70 kD

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