

Product name:	IL-7R Rabbit Polyclonal Antibody
Cat number:	ABN12567
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human IL-7R/CD127. AA range:410-459
Reactivity:	Human,Mouse,Monkey
Applications:	WB 1:500-1:2000,ELISA 1:20000-1:40000
Molecular Weight:	52 60kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The protein encoded by this gene is a receptor for interleukin 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 interleukins 2, 4, 7, 9, and 15. This protein has been shown to play a critical role in V(D)J recombination during lymphocyte development. Defects in this gene may be associated with severe combined immunodeficiency (SCID). Alternatively spliced transcript variants have been found. [provided by RefSeq, Dec 2015],disease:A genetic variation in transmembrane domain of IL7R is associated with susceptibility to multiple sclerosis (MS) [MIM:126200]. Overtransmission of the major 'C' allele coding for Thr-244 are 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.,disease:Defects in IL7R are a cause of autosomal recessive severe combined immunodeficiency T-cell-negative/B-cell-positive/NK cell-positive (T(-)/B(+)/NK(+)) SCID [MIM:608971]. SCID refers to a genetically and clinically group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients with SCID present in infancy with recurrent, persistent infections by opportunistic organisms, including *Candida albicans*, *Pneumocystis carinii*, and cytomegalovirus, among many others. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development.,domain:The box 1 motif is required for JAK interaction and/or activation.,domain:The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding.,function:Receptor for interleukin-7. Also acts as a receptor for thymic stromal lymphopoietin (TSLP).,online information:IL7R mutation db,sequence caution:Contaminating sequence. Potential poly-A sequence.,similarity:Belongs to the type I cytokine receptor family. Type 4 subfamily.,similarity:Contains 1 fibronectin type-III domain.,subunit:The IL7 receptor is an heterodimer of IL7R and IL2RG. The TSLP receptor is an heterodimer of CRLF2 and IL7R.,