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Datasheet for 600-401-A48

IL-7 Receptor Alpha Chain Antibody

Overview

Description:	Anti-IL-7 Receptor alpha chain (RABBIT) Antibody - 600-401-A48
Item No.:	600-401-A48
Size:	100 µg
Applications:	Dot Blot, ELISA, WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Interleukin-7 is a glycoprotein 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 an 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. The human and mouse sequence is nearly identical. In humans, severe combined immunodeficiency is caused by genetic defects in IL-7 receptor. The tyrosine residue at the 449 position is a critical signaling site of the intracellular domain of IL-7 receptor. This site is rapidly phosphorylated by janus kinases after the IL-7 receptor is engaged. IL-7 Receptor Alpha Chain Antibody is ideal for investigators interested in Immunology research.
Synonyms:	rabbit anti-IL-7 Receptor alpha chain antibody, rabbit anti-Interleukin-7 Receptor alpha chain antibody, IL7R alpha antibody, IL-7R alpha, IL 7R α, Interleukin7 Receptor, Interleukin 7 receptor alpha chain antibody, Interleukin 7 receptor α antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	IL17R

Reactivity:	Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the carboxy terminus of mouse IL-7 receptor protein.
Purity/Specificity:	This product was affinity purified from monospecific antiserum by immunoaffinity chromatography using peptide coupled to agarose beads. This antibody is specific for mouse IL-7 receptor protein. A BLAST analysis was used to suggest cross-reactivity with IL-7 receptor protein from human, mouse and rat sources based on 100% homology with the immunizing sequence. Cross-reactivity with IL-7 receptor protein from other sources has not been determined. Anti-IL-7 receptor alpha chain antibody is useful for researchers interested in Immunology Research.
Relevant Links:	• UniProtKB - P16872 • NCBI - 45269152 • GeneID - 16197

Application Details

Tested Applications:	Dot Blot, ELISA, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 55 kDa in size corresponding to IL-7 receptor protein by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000-1:50,000
IHC:	User Optimized
WB:	1:1,000 - 1:10,000

Formulation

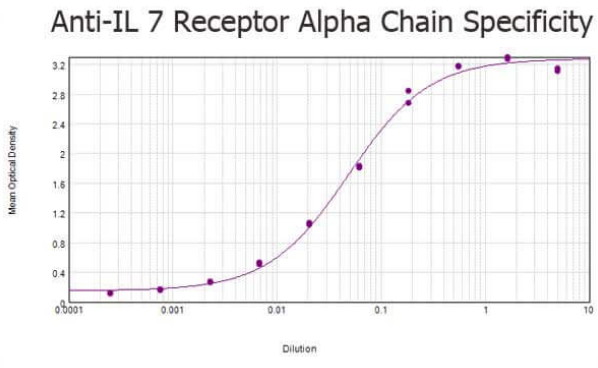
Physical State:	Liquid (sterile filtered)
Concentration:	1.14 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Stabilizer:	None

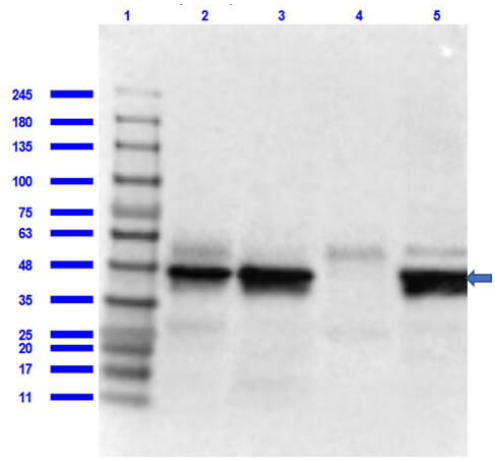
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store IL-7 Receptor Alpha Chain Antibody at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



ELISA
ELISA results of purified Rabbit anti-IL 7 Receptor Alpha Chain Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1µg of conjugate. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) (p/n 611-103-122) and TMB ELISA Peroxidase Substrate (p/n TMBE-1000).



Western Blot
Western Blot of Rabbit Anti-IL-7 Receptor alpha chain Antibody. Lane 1: Opal Prestained Molecular Weight Marker (MB-210-0500). Lane 2: Human Spleen Whole Cell Lysate [30µL] (+). Lane 3: U251 Whole Cell Lysate (p/n W09-001-GY4) [30µL] (+). Lane 4: Human Pancreas Whole Cell Lysate [30µL] (-). Lane 5: MOLT-4 Whole Cell Lysate (p/n W09-001-GK2) [30µL] (+). Primary Antibody: Anti-IL-7R at 1.0µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG Peroxidase (p/n 611-103-122) at 1:70,000 for 30 mins at RT. Block: BlockOut Buffer (p/n MB-073) for 1hr at RT. Exposure: 5 seconds. Predicted MW: ~55kDa.

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Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.