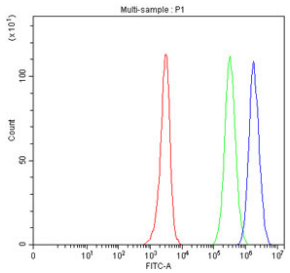
CD127 Antibody / Interleukin 7 Receptor Antibody (RQ8854)

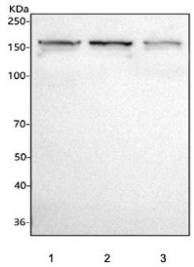
Catalog No.	Formulation	Size
RQ8854	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

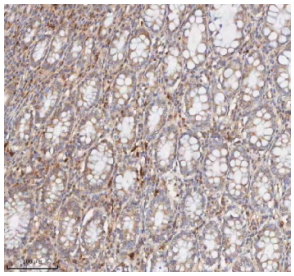
Availability	1-2 days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P16871
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This CD127 Antibody / Interleukin 7 Receptor Antibody is available for research use only.



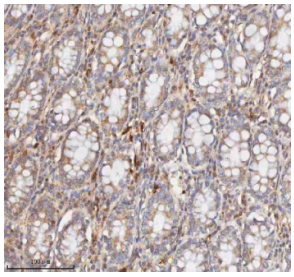
CD127 Antibody Detection in Human JK Cells FACS. Flow cytometry analysis of fixed human JK cells using CD127 Antibody shows a strong rightward fluorescence shift in the antibody-stained population (blue) relative to the isotype control (green) and cells-alone control (red). Cells were blocked with goat serum and tested with primary antibody at 1 ug/million cells. The well-separated populations demonstrate detection of cell-surface CD127 using this Interleukin 7 Receptor Antibody.



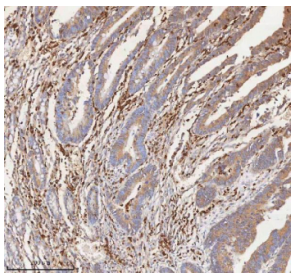
CD127 Antibody Detects IL7R in Human Lymphoid Cell Lines WB. Western blot analysis of human cell lysates using CD127 Antibody shows strong major bands at approximately 150 kDa. Lane 1: MOLT4 T lymphoblast cells; lane 2: K562 chronic myelogenous leukemia cells; lane 3: Jurkat T lymphocytes. The observed migration is consistent with the reported dimeric form of CD127, while glycosylated monomeric IL7R is expected at approximately 52-90 kDa. This Interleukin 7 Receptor Antibody produces a consistent, predominantly single-band pattern across all three lysates.



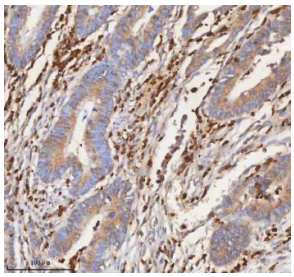
CD127 Antibody Staining in Human Colon Tissue IHC. Immunohistochemistry staining of FFPE human colon tissue using CD127 Antibody shows brown staining distributed among cells surrounding and between the colonic glands, with comparatively limited staining of the glandular epithelium. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. This Interleukin 7 Receptor Antibody demonstrates heterogeneous CD127 staining within the human colonic mucosa.



CD127 Antibody Detection in Human Colonic Mucosa IHC. Immunohistochemistry staining of FFPE human colon tissue using CD127 Antibody shows heterogeneous brown staining in cells within the lamina propria surrounding the colonic glands. The glandular epithelial structures are comparatively lightly stained. HIER was performed by boiling sections in pH 8 EDTA for 20 min followed by cooling before testing. This second field provides complementary visualization of CD127 using the Interleukin 7 Receptor Antibody in human colon tissue.



CD127 Antibody Staining in Human Colon Epithelium and Stroma IHC. Immunohistochemistry staining of FFPE human colon tissue using CD127 Antibody shows prominent brown staining along portions of the glandular epithelium together with numerous positive cells in the surrounding stromal compartment. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. This Interleukin 7 Receptor Antibody demonstrates a heterogeneous distribution of CD127 staining across epithelial and stromal regions.



CD127 Antibody Detection in Human Colon Glands and Stroma IHC. Immunohistochemistry staining of FFPE human colon tissue using CD127 Antibody shows distinct brown staining within portions of the glandular epithelium and numerous cells in the intervening stromal tissue. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. The staining provides an additional tissue field demonstrating detection of CD127 with this Interleukin 7 Receptor Antibody.

Description

CD127 Antibody recognizes the interleukin 7 receptor alpha chain, a type I transmembrane protein encoded by the IL7R gene. Also known as IL7RA and CD127, this receptor subunit plays an essential role in lymphocyte development, survival, and homeostasis. CD127 associates with the common gamma chain, IL2RG/CD132, to form the functional receptor for interleukin 7 (IL-7), a cytokine with particularly important functions in T-cell development and maintenance.

Binding of IL-7 to its receptor activates receptor-associated JAK1 and JAK3 kinases, leading to downstream signaling through STAT proteins, particularly STAT5. IL7R signaling can also engage PI3K-AKT and other pathways that regulate cellular survival, proliferation, differentiation, and metabolism. These signals help maintain lymphocyte populations by

promoting expression of survival-associated proteins and supporting cellular responses required during immune-cell development.

CD127 expression is closely associated with T-cell biology and varies according to cellular differentiation and activation state. The receptor is important for the development and maintenance of naive and memory T-cell populations and also contributes to lymphoid development more broadly. CD127 is commonly used in immunology research as a cell-surface marker for characterizing lymphocyte populations, including its use together with other markers to distinguish regulatory and conventional T-cell subsets.

Altered IL7R expression or signaling is studied in immune deficiency, autoimmunity, inflammation, leukemia, and other disorders involving lymphocyte development or homeostasis. Genetic defects affecting IL7R can disrupt normal lymphocyte development and are associated with forms of severe combined immunodeficiency. As an Interleukin 7 Receptor Antibody, this rabbit polyclonal provides a reagent for investigating this important cytokine receptor and its relationship to lymphocyte biology. NSJ Bioreagents supplies this antibody for research use only.

A CD127 Antibody can be used to investigate IL7R expression and molecular mechanisms connecting cytokine signaling, lymphocyte development, T-cell homeostasis, and adaptive immune responses.

Explore our CD Antibodies page for additional antibodies targeting cluster of differentiation proteins used to study immune-cell identity, signaling, and function.

Application Notes

Optimal dilution of the CD127 Antibody / Interleukin 7 Receptor Antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (amino acids A33-Q433) was used as the immunogen for the CD127 antibody.

Storage

After reconstitution, the CD127 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD127 antibody, IL7R antibody, IL7RA antibody, interleukin 7 receptor antibody, interleukin-7 receptor antibody, interleukin 7 receptor alpha antibody, interleukin-7 receptor alpha antibody, IL-7R alpha antibody, IL7R alpha antibody

Copyright © NSJ Bioreagents. All rights reserved.