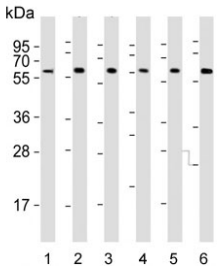
IL2 Receptor Gamma Antibody / CD132 Polyclonal Antibody (F54473)

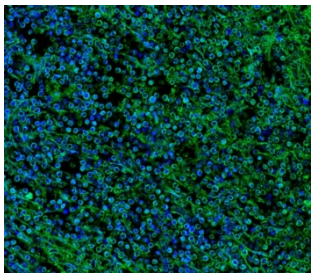
Catalog No.	Formulation	Size
F54473-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54473-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

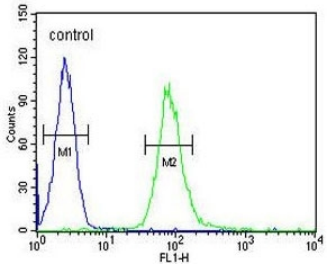
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity purified
UniProt	P31785
Applications	Western blot: 1:500-1:2000 Flow cytometry: 1:25 (1x10e6 cells) Immunofluorescence: 1:25
Limitations	This IL2 Receptor Gamma Antibody / CD132 Polyclonal Antibody is available for research use only.



IL2 Receptor Gamma Antibody by WB in Human Spleen and Cell Lines. Western blot testing of human spleen (lane 1), Jurkat (lane 2), Daudi (lane 3), KG1 (lane 4), MOLT4 (lane 5) and HL60 (lane 6) lysates with IL2 Receptor Gamma Antibody. A prominent band is detected between approximately 55 and 70 kDa across the tested samples, with variation in migration consistent with the reported glycosylation-dependent molecular weight range of IL2RG. The CD132 Polyclonal Antibody produces strong target-region signals across the six samples, with limited additional reactivity.



IL2 Receptor Gamma Antibody by IF in Human Spleen. Immunofluorescence staining of FFPE human spleen sections using IL2 Receptor Gamma Antibody. CD132/IL2RG staining is visualized in green and nuclei are counterstained blue with DAPI. The CD132 Polyclonal Antibody produces widespread cellular staining throughout the lymphoid tissue, with prominent membrane-associated and cytoplasmic fluorescence surrounding the DAPI-positive nuclei.



IL2 Receptor Gamma Antibody by FACS in HL60 Cells. Flow cytometry analysis of human HL60 cells using IL2 Receptor Gamma Antibody. Cells stained with the CD132 Polyclonal Antibody (green) show a strong rightward fluorescence shift relative to the isotype control (blue), with clear separation between the two populations. The result demonstrates detection of cell-associated IL2RG/CD132 in HL60 cells by flow cytometry.

Description

IL2 Receptor Gamma Antibody recognizes interleukin 2 receptor gamma (IL2RG), a type I transmembrane protein also known as CD132 and the common gamma chain. IL2RG is an essential signaling component shared by several cytokine receptor complexes that regulate immune cell development, survival, proliferation and differentiation. Unlike cytokine-specific receptor subunits, the common gamma chain participates in receptors for IL-2, IL-4, IL-7, IL-9, IL-15 and IL-21, placing CD132 at a central point in cytokine-mediated immune signaling.

Individual cytokines achieve signaling specificity through receptor complexes containing distinct ligand-binding subunits together with shared signaling components such as IL2RG. Following cytokine binding and receptor assembly, the intracellular region of CD132 associates primarily with Janus kinase 3 (JAK3). Activation of JAK family kinases promotes phosphorylation of receptor-associated proteins and downstream STAT transcription factors, allowing extracellular cytokine signals to regulate gene expression. A CD132 Polyclonal Antibody is therefore useful for studying a receptor component connecting several major cytokine pathways to intracellular signaling networks.

IL2RG has particularly important roles in lymphocyte biology. IL-7 receptor signaling is required for normal T-cell development, while IL-15 signaling contributes to natural killer cell development and homeostasis. IL-2 and other common gamma chain cytokines further regulate the proliferation, differentiation and function of multiple lymphocyte populations. Because these receptors all depend on IL2RG, disruption of the common gamma chain can simultaneously impair several immune pathways rather than affecting a single cytokine response.

Pathogenic variants in IL2RG cause X-linked severe combined immunodeficiency (X-SCID), an inherited disorder characterized by profound defects in immune development. The close functional relationship between IL2RG and JAK3 is reflected by similarities between immune deficiencies resulting from disruption of either protein. Beyond inherited immunodeficiency, CD132 is studied in cytokine signaling, hematopoiesis, immune-cell activation and therapeutic strategies designed to manipulate common gamma chain cytokine pathways.

NSJ Bioreagents provides this CD132 Polyclonal Antibody for research into IL2RG expression and the common gamma chain cytokine receptor network. Its participation in six cytokine receptor systems makes IL2RG an important target for investigating how extracellular immune signals converge on shared receptor and JAK/STAT signaling machinery. An IL2 Receptor Gamma Antibody can be used to investigate CD132 expression, cytokine receptor biology, lymphocyte development, immune signaling and mechanisms associated with immunodeficiency.

Explore related immune cell surface markers in our CD Antibodies collection.

Application Notes

The stated application concentrations are suggested starting points. Titration of the IL2 Receptor Gamma Antibody / CD132 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 76-101 from the human protein was used as the immunogen for the IL2 Receptor Gamma Antibody.

Storage

Aliquot the IL2 Receptor Gamma Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CD132 antibody, Common Gamma Chain antibody, Cytokine Receptor Common Gamma Chain antibody, Gamma C antibody, IL2 Receptor Gamma Chain antibody, Interleukin 2 Receptor Gamma Chain antibody

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