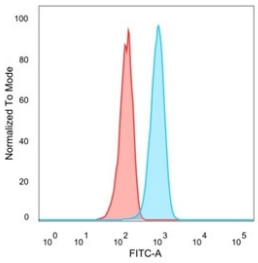
Interleukin 7 Antibody IL7/4013 / IL-7 Monoclonal Antibody [clone IL7/4013] (V9629)

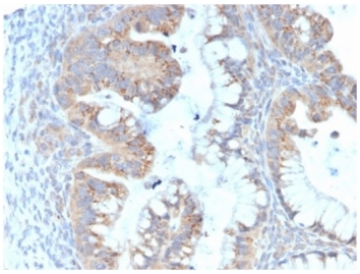
Catalog No.	Formulation	Size
V9629-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9629-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9629SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

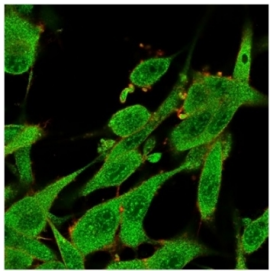
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	IL7/4013
Purity	Protein A/G affinity
UniProt	P13232
Localization	Secreted
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Interleukin 7 Antibody IL7/4013 / IL-7 Monoclonal Antibody is available for research use only.



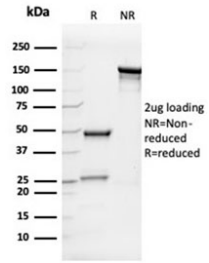
Interleukin 7 Antibody IL7/4013 by FACS in Human U-87 MG Cells. Flow cytometry analysis of PFA-fixed human U-87 MG glioblastoma cells using Interleukin 7 Antibody IL7/4013. The blue histogram representing antibody staining shows a pronounced rightward fluorescence shift relative to the red isotype control histogram. The two populations are clearly separated, with antibody-treated cells exhibiting greater fluorescence intensity. The IL-7 Monoclonal Antibody demonstrates immunoreactivity in fixed U-87 MG cells under the tested conditions.



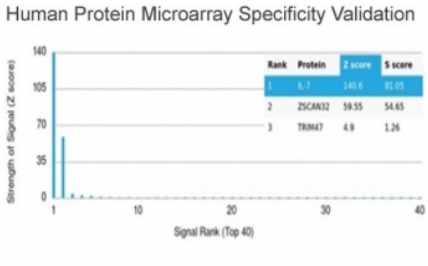
Interleukin 7 Antibody IL7/4013 by IHC in Human Colon Carcinoma. Immunohistochemistry of FFPE human colon carcinoma tissue using Interleukin 7 Antibody IL7/4013. Brown cytoplasmic staining is observed in malignant epithelial cells forming irregular glandular structures, with variable staining intensity across the tissue section. The IL-7 Monoclonal Antibody highlights the tumor cell cytoplasm, while nuclei are counterstained blue with hematoxylin. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before staining.



Interleukin 7 Antibody IL7/4013 by IF in Human U-87 MG Cells. Immunofluorescence staining of PFA-fixed human U-87 MG glioblastoma cells using Interleukin 7 Antibody IL7/4013. Green fluorescence is observed throughout the cytoplasm, with a granular staining pattern and variable intensity among individual cells. The IL-7 Monoclonal Antibody produces prominent cytoplasmic staining, while red phalloidin fluorescence highlights filamentous actin and cellular morphology. The merged image demonstrates the distribution of antibody immunoreactivity within the cells.



Interleukin 7 Antibody IL7/4013 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Interleukin 7 Antibody IL7/4013 under reducing (R) and non-reducing (NR) conditions, with 2 ug of antibody loaded per lane. The non-reducing lane shows a prominent band migrating at approximately 130-150 kDa, consistent with intact IgG. Under reducing conditions, distinct bands are observed near 50 kDa and 25 kDa, corresponding to the immunoglobulin heavy and light chains, respectively. The IL-7 Monoclonal Antibody demonstrates the expected electrophoretic profile of a purified mouse monoclonal antibody preparation.



Interleukin 7 Antibody IL7/4013 by Protein Microarray Analysis. HuProt protein microarray analysis of Interleukin 7 Antibody IL7/4013 against more than 19,000 full-length human proteins. The graph displays a dominant binding signal for IL-7, clearly separated from the remaining proteins on the array. The IL-7 Monoclonal Antibody demonstrates preferential recognition of its intended target, supporting its specificity in this protein microarray assay. The Z-score represents the strength of the binding signal relative to the array background, while the S-score reflects the difference between the intended target and the next-highest ranked protein.

Description

Interleukin 7 Antibody IL7/4013 recognizes interleukin 7 (IL-7), a secreted cytokine that plays an essential role in lymphocyte development, survival, and immune homeostasis. Encoded by the IL7 gene on chromosome 8, this protein is produced primarily by stromal and epithelial cells in lymphoid organs and peripheral tissues. IL-7 is particularly important for T cell development in the thymus and for maintaining naive and memory T lymphocyte populations in the periphery. Unlike cytokines released predominantly by activated immune cells, IL-7 is generally supplied by the surrounding tissue microenvironment, where it supports lymphocyte survival and helps regulate immune cell populations.

IL-7 signals through a receptor complex consisting of IL7R alpha (CD127) and the common gamma chain (CD132). Receptor engagement activates the JAK1/JAK3 signaling pathway, leading to STAT5 phosphorylation and transcriptional regulation of genes involved in cell survival and proliferation. IL-7 promotes expression of antiapoptotic proteins such as BCL2, helping T lymphocytes survive during periods of limited antigen stimulation. It also contributes to lymphocyte metabolic activity and homeostatic proliferation. These functions make IL-7 signaling central to the maintenance of adaptive immunity and the recovery of lymphocyte populations following immune depletion.

Interleukin 7 is widely investigated in immunodeficiency, chronic infection, cancer immunology, and immune

reconstitution. Defects in IL-7 receptor signaling can cause severe abnormalities in T cell development, while changes in IL-7 availability may influence lymphocyte recovery after chemotherapy or hematopoietic stem cell transplantation. Abnormal IL-7 signaling has also been implicated in certain lymphoid malignancies, including T cell acute lymphoblastic leukemia. Researchers examine IL-7 expression and signaling to better understand cytokine-mediated lymphocyte survival, immune dysregulation, and the development of therapeutic strategies intended to restore or modify immune function.

NSJ Bioreagents offers mouse monoclonal clone IL7/4013 for investigating human interleukin 7 expression. The antibody was developed against a recombinant protein fragment within amino acids 27-177 of human IL-7 and is supported by immunohistochemistry, immunofluorescence, flow cytometry, and protein microarray validation data. The IL-7 Monoclonal Antibody provides an additional clone option for investigating cytokine expression in human cells and tissues. An Interleukin 7 Antibody such as IL7/4013 supports research into lymphocyte development, immune homeostasis, and disorders involving altered cytokine signaling.

Explore our protein microarray-validated IL-7 Antibody IL7/4012 for investigating interleukin 7 expression, lymphocyte development, cytokine signaling, and immune homeostasis.

Application Notes

Optimal dilution of the Interleukin 7 Antibody IL7/4013 / IL-7 Monoclonal Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 27-177 was used as the immunogen for the Interleukin 7 Antibody IL7/4013.

Storage

Aliquot the Interleukin 7 Antibody IL7/4013 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

IL-7 antibody, IL7 antibody, Interleukin-7 antibody, Lymphopoietin 1 antibody, Lymphopoietin-1 antibody, IL-7 cytokine antibody

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