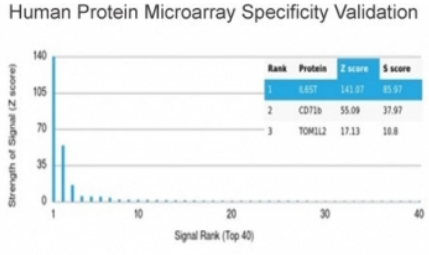
IL6ST Antibody IL6ST/4101 / Interleukin 6 Receptor Beta Antibody [clone IL6ST/4101] (V9656)

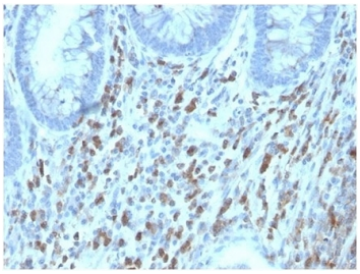
Catalog No.	Formulation	Size
V9656-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9656-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9656SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	IL6ST/4101
Purity	Protein A/G affinity
UniProt	P40189
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This IL6ST Antibody IL6ST/4101 / Interleukin 6 Receptor Beta Antibody is available for research use only.



IL6ST Antibody IL6ST/4101 Protein Microarray Validated. HuProt protein microarray analysis of IL6ST Antibody (clone IL6ST/4101) against more than 19,000 full-length human proteins identifies IL6ST as the dominant target, with a Z-score of 109.1 and S-score of 99.7. The Z-score represents signal strength in standard deviations above the array mean, while the S-score measures separation from the next-ranked protein. The exceptionally large separation visible in the plot provides strong evidence of preferential recognition of IL6ST under the tested microarray conditions. IL6ST is the signal-transducing component also known as interleukin 6 receptor beta.



IL6ST Antibody Staining in Human Adrenal Gland IHC. Immunohistochemistry staining of FFPE human adrenal gland tissue with IL6ST Antibody (clone IL6ST/4101) shows prominent brown staining in numerous cells, with heterogeneous signal intensity across the field. Staining is predominantly cytoplasmic and membranous, while surrounding structures show comparatively less signal. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling before testing. The staining pattern demonstrates detection of IL6ST, also known as interleukin 6 receptor beta, in human adrenal gland tissue.

Description

IL6ST Antibody IL6ST/4101 recognizes interleukin 6 signal transducer (IL6ST), a transmembrane glycoprotein widely known as gp130 and CD130. IL6ST functions as the common signal-transducing receptor component for members of the interleukin 6 cytokine family. It associates with ligand-specific receptor components to form signaling complexes responsive to cytokines including IL-6, IL-11, leukemia inhibitory factor, oncostatin M, ciliary neurotrophic factor, and cardiotrophin-1.

In classical IL-6 signaling, IL-6 first binds IL6R (CD126), followed by recruitment of IL6ST to form the active receptor complex. IL6ST also participates in IL-6 trans-signaling, in which IL-6 bound to soluble IL6R can activate gp130-expressing cells that lack membrane-bound IL6R. The broad distribution of IL6ST therefore enables IL-6 family cytokines to regulate diverse cellular and physiological processes.

Assembly of IL6ST-containing receptor complexes activates associated JAK kinases and downstream signaling pathways including STAT3, MAPK, and PI3K-AKT. These pathways influence cell survival, proliferation, differentiation, hematopoiesis, inflammatory responses, and tissue homeostasis. Negative regulatory mechanisms, including SOCS proteins, help constrain the duration and magnitude of IL6ST-mediated signaling.

Clone IL6ST/4101 is a mouse monoclonal antibody generated against a recombinant fragment corresponding to the extracellular domain of human IL6ST. The antibody has also been evaluated on a HuProt protein microarray containing more than 19,000 full-length human proteins to assess target specificity. As an Interleukin 6 Receptor Beta Antibody, clone IL6ST/4101 provides a defined reagent for investigating the shared receptor component linking IL-6 family cytokines with intracellular signaling. NSJ Bioreagents supplies IL6ST/4101 for research use only.

An IL6ST Antibody can be used to investigate gp130 expression and molecular mechanisms connecting IL-6 family cytokines with JAK-STAT signaling, inflammatory responses, immune regulation, and cellular homeostasis.

For a CD130 antibody with broader Western blot and IHC validation across multiple human samples, see our CD130 Antibody / gp130 Antibody page.

Application Notes

Optimal dilution of the IL6ST Antibody IL6ST/4101 / Interleukin 6 Receptor Beta Antibody should be determined by the researcher.

Immunogen

A recombinant fragment of the human protein corresponding to the extracellular domain was used as the immunogen for the IL6ST Antibody IL6ST/4101.

Storage

Aliquot the IL6ST Antibody IL6ST/4101 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

IL6ST antibody, interleukin 6 signal transducer antibody, interleukin-6 signal transducer antibody, interleukin 6 receptor beta antibody, interleukin-6 receptor beta antibody, interleukin 6 receptor subunit beta antibody, CD130 antibody, gp130 antibody, IL6RB antibody

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