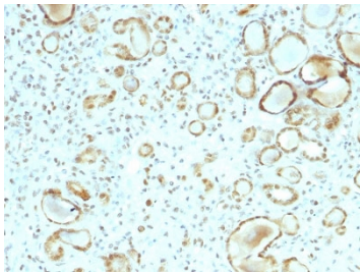
STAT6 Antibody STAT6/2410 / STAT6 Mouse Monoclonal Antibody [clone STAT6/2410] (V3893)

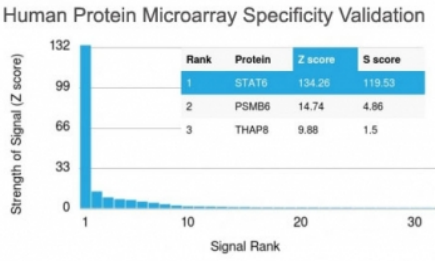
Catalog No.	Formulation	Size
V3893-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3893-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3893SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

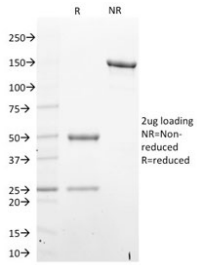
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	STAT6/2410
Purity	Protein G affinity chromatography
UniProt	P42226
Localization	Cytoplasmic, nuclear
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Flow cytometry: 1-2ug/million cells
Limitations	This STAT6 Antibody STAT6/2410 / STAT6 Mouse Monoclonal Antibody is available for research use only.



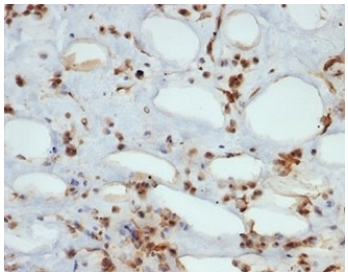
STAT6 Antibody STAT6/2410 IHC Staining of Human Renal Cell Carcinoma. Immunohistochemical analysis of formalin-fixed, paraffin-embedded human renal cell carcinoma tissue using STAT6 Mouse Monoclonal Antibody clone STAT6/2410. Brown DAB staining is observed in scattered cells and portions of the tumor epithelium, including cytoplasmic and nuclear regions. Heat-induced epitope retrieval was performed using 10 mM citrate buffer (pH 6) for 10-20 minutes, followed by cooling at room temperature before antibody incubation.



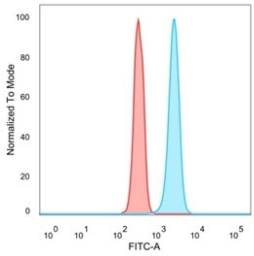
STAT6 Antibody STAT6/2410 HuProt Protein Microarray Specificity Validation. Protein microarray analysis of STAT6 Mouse Monoclonal Antibody clone STAT6/2410 using a HuProt array containing more than 19,000 full-length human proteins. STAT6 is identified as the highest-ranked binding target, with substantially greater signal than the other proteins displayed in the specificity profile. The results support selective recognition of STAT6 under the microarray testing conditions.



STAT6 Antibody STAT6/2410 SDS-PAGE Analysis of Purified Antibody. SDS-PAGE analysis of purified STAT6 Mouse Monoclonal Antibody clone STAT6/2410 under reducing (R) and non-reducing (NR) conditions. The reducing lane shows bands corresponding to antibody heavy and light chains near 50 and 25 kDa, respectively, while the non-reducing lane contains a predominant band near 150 kDa, consistent with intact IgG. Approximately 2 ug of purified antibody was loaded per condition.



STAT6 Antibody STAT6/2410 IHC Staining of Human Liposarcoma Tissue. Immunohistochemical analysis of formalin-fixed, paraffin-embedded human liposarcoma tissue using STAT6 Mouse Monoclonal Antibody clone STAT6/2410. Brown DAB staining is observed in numerous tumor-associated cells, including nuclear and cytoplasmic regions, with hematoxylin counterstaining. Heat-induced epitope retrieval was performed using 10 mM citrate buffer (pH 6) for 10-20 minutes, followed by cooling at room temperature.



STAT6 Antibody STAT6/2410 FACS Staining of Human HeLa Cells. Flow cytometry analysis of PFA-fixed and permeabilized human HeLa cells using STAT6 Mouse Monoclonal Antibody clone STAT6/2410. The antibody-stained population (blue) shows a clear rightward fluorescence shift relative to the isotype control (red), demonstrating antibody-associated staining consistent with STAT6 detection.

Description

STAT6 Antibody STAT6/2410 / STAT6 Mouse Monoclonal Antibody targets Signal Transducer and Activator of Transcription 6 (STAT6), a transcription factor that regulates cellular responses to interleukin-4 (IL-4) and interleukin-13 (IL-13). STAT6 belongs to the STAT family of proteins, which transmit signals from cytokine receptors to the nucleus and regulate gene expression. Its activity is particularly important in type 2 immune responses, allergic inflammation, and the differentiation of T helper 2 (Th2) lymphocytes. STAT6 functions as a molecular link between extracellular cytokine stimulation and transcriptional programs controlling immune cell behavior.

STAT6 activation occurs following engagement of IL-4 or IL-13 receptor complexes, which stimulate receptor-associated Janus kinases (JAKs). These kinases phosphorylate STAT6 at tyrosine 641, promoting dimerization through interactions involving its SH2 domain. Activated STAT6 dimers accumulate in the nucleus, recognize specific DNA regulatory elements, and influence cytokine-responsive gene transcription. Its signaling activity is controlled by protein phosphatases, inhibitory proteins, and mechanisms regulating nuclear transport and protein turnover. These processes help ensure that transcriptional responses remain appropriately coordinated with extracellular signals.

In adaptive immunity, STAT6 promotes Th2 differentiation and contributes to expression of GATA3, a transcription factor essential for type 2 immune development. STAT6 also participates in IL-4-dependent immunoglobulin class switching and

regulates genes involved in allergic inflammation. In macrophages, IL-4 and IL-13 signaling through STAT6 supports alternative activation programs associated with tissue remodeling, wound repair, and immune regulation. These functions connect STAT6 to interactions between immune cells and their surrounding tissue environments.

Abnormal STAT6 signaling has been implicated in asthma, atopic dermatitis, chronic inflammatory disorders, and tumor-associated immune responses. STAT6 also has significance in tumor pathology because nuclear STAT6 immunoreactivity is characteristic of many solitary fibrous tumors containing NAB2-STAT6 gene fusions. However, total STAT6 expression and nuclear localization should not automatically be interpreted as evidence of phosphorylation-dependent activation. Distinguishing protein abundance from signaling activity is important when evaluating the biological significance of STAT6 localization.

STAT6 Antibody STAT6/2410 supports investigations of cytokine-responsive transcription, immune differentiation, and disease-associated changes in STAT6 expression. Understanding the mechanisms governing STAT6 regulation remains important for characterizing type 2 immunity, inflammatory disease, and the molecular pathways connecting cytokine signaling with cellular transcriptional responses.

For additional STAT6 research, explore our STAT6 Antibody, featuring knockout-validated Western blot data and supporting immunohistochemistry, immunofluorescence, and flow cytometry results.

Application Notes

Optimal dilution of the STAT6 Antibody STAT6/2410 / STAT6 Mouse Monoclonal Antibody should be determined by the researcher.

Immunogen

Full length recombinant human protein was used as the immunogen for this STAT6 antibody.

Storage

Store the STAT6 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

STAT6/2410 antibody, STAT6 clone STAT6/2410 antibody, STAT6 mouse monoclonal antibody, Signal Transducer and Activator of Transcription 6 antibody, STAT6 transcription factor antibody, STAT6 protein microarray validated antibody, STAT6 HuProt validated antibody, IL-4 STAT antibody, IL-13 signaling STAT antibody, STAT6 cytokine signaling antibody

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