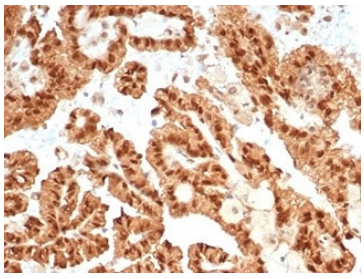
Recombinant STAT6 Antibody [clone STAT6/7163R] (V4052)

Catalog No.	Formulation	Size
V4052-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4052-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4052SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

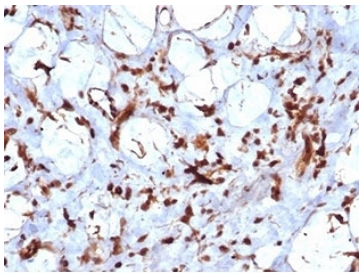
Recombinant RABBIT MONOCLONAL

Bulk quote request

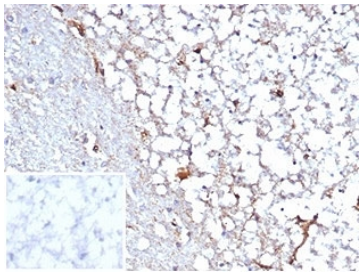
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	STAT6/7163R
Purity	Protein A/G affinity
UniProt	P42226
Localization	Cytoplasm, nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This recombinant STAT6 antibody is available for research use only.



Immunohistochemistry analysis of STAT6 antibody in human renal cell carcinoma tissue (clone STAT6/7163R). FFPE human renal cell carcinoma sections demonstrate strong HRP-DAB brown nuclear staining in tumor epithelial cells forming papillary and glandular structures. The predominant nuclear localization is consistent with activated Signal transducer and activator of transcription 6, reflecting cytokine-driven phosphorylation and nuclear translocation. Cytoplasmic staining can be seen, and surrounding stromal elements show limited background signal. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to antibody incubation.



IHC staining of FFPE human liposarcoma tissue with recombinant STAT6 antibody (clone STAT6/7163R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human cerebellum tissue with recombinant STAT6 antibody (clone STAT6/7163R). Negative control inset: PBS used instead of primary antibody to control for secondary Ab binding. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

STAT6 antibody recognizes Signal Transducer and Activator of Transcription 6, a cytokine-activated transcription factor that mediates interleukin-4 and interleukin-13 signaling. Encoded by the STAT6 gene on chromosome 12q13.3, this protein functions as a critical regulator of type 2 immune responses. In unstimulated cells, STAT6 resides predominantly in the cytoplasm. Upon cytokine engagement, it undergoes phosphorylation, dimerization, and nuclear translocation to regulate gene expression.

Signal Transducer and Activator of Transcription 6 is essential for Th2 lineage commitment and B cell immunoglobulin class switching. Activation through IL-4 receptor complexes results in recruitment of STAT6 to phosphorylated receptor chains via its SH2 domain. Once phosphorylated, STAT6 dimers bind promoter regions of target genes involved in allergic inflammation, including those regulating IgE production, chemokine expression, and epithelial barrier responses.

STAT6 contains conserved domains typical of STAT proteins, including an N-terminal oligomerization domain, coiled-coil region, DNA-binding domain, linker, SH2 domain, and transactivation domain. These domains enable STAT6 to function as both a signal transducer and a transcriptional regulator. Through these structural features, STAT6 participates in coordinated immune responses and tissue remodeling processes.

Expression of STAT6 is observed in immune cell populations such as T lymphocytes, B lymphocytes, and macrophages, as well as in certain epithelial and stromal cells following cytokine stimulation. Dysregulated STAT6 activity has been associated with allergic disease, asthma pathogenesis, and select tumor types. In research models of soft tissue tumors, nuclear localization of STAT6 has been studied as a molecular feature linked to specific gene fusions and signaling alterations.

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 recombinant STAT6 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the recombinant STAT6 antibody.

Storage

Aliquot the recombinant STAT6 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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