Technical Data Sheet

Purified Mouse Anti-Mouse Stat6 (pY641)

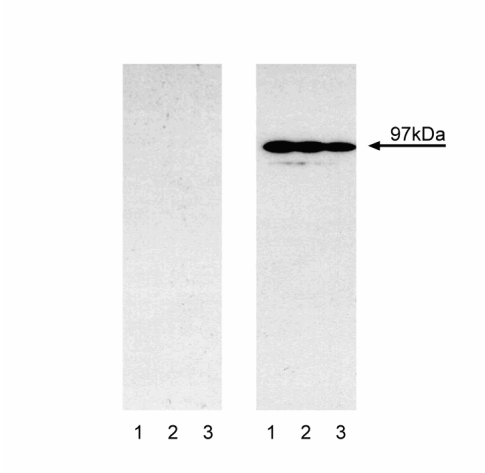
Product Information

Material Number:	**558241**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	J71-773.58.11
Immunogen:	Phosphorylated Mouse STAT6 (Y641) Peptide
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Mouse
Target MW:	97 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

STATs (signal transducers and activators of transcription) are critical mediators of the biologic activity of cytokines including Interleukins (IL) 2-5, IL-7, IL-15, GM-CSF, erythropoietin and growth hormone. Ligand-receptor interaction leads to activation of constitutively associated JAK family kinases and subsequent recruitment/activation of STATs by tyrosine phosphorylation. Active STATs then move to the nucleus to promote transcription of cytokine-inducible genes. Seven STAT proteins have been cloned, each of which is differentially expressed and/or activated in a cytokine-specific and cell type-specific manner. Stat6 plays an important role in signaling pathways that lead to the differentiation of T helper type 2 (Th2) cells from uncommitted CD4 T cell precursors. Moreover, IL-4, secreted by activated T lymphocytes, basophils, and mast cells, induces specific gene expression via the induction of tyrosine phosphorylation of Stat6 at tyrosine 641 (Y641). The SH3:SH2 domain of Stat6 associates with tyrosine-phosphorylated IL-4 receptor and the proximal Jak kinase phosphorylates Stat6 at Y641 on the C-terminal side of the SH2 domain. Stat6 is then released from the receptor, dimerizes, and is thought to contact the basal transcription machinery by binding to p300/CBP. While Stat6 is widely expressed in human tissues, it exhibits elevated expression in peripheral blood lymphocytes, colon, intestine, ovary, prostate, thymus, spleen, kidney, liver, lung, and placenta.

The J71-773.58.11 antibody recognizes mouse Stat6 phosphorylated at Y641.



Western blot analysis of mouse Stat6 (pY641). *Lysates from control (left panel) and mouse IL-4 (Cat.No. 550067) treated (right panel) mouse 2E9 T hybridoma were probed with purified mouse anti-Stat6 (pY641) mAb (clone J71-773.58.11) at concentrations of 2.0 (lanes 1), 1.0 (lanes 2), and 0.5 (lanes 3) µg/ml. Stat6 (pY641) is identified as a band of 97 kDa in the treated lysate.*

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested

Recommended Assay Procedure:

Note: For western blotting of human samples, Purified Mouse Anti-Human Stat6 (pY641) mAb (clone 18) (Cat. no. 611566) is recommended.

Western blotting protocol: Please refer to http://www.bdbiosciences.com/support/resources/cell_biology/index.jsp

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
550067	Recombinant Mouse IL-4	10 µg	(none)
611566	Purified Mouse Anti-Stat 6 (pY641)	50 µg	18/P-Stat6

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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