

STAT6 [pY641] ABfinity™ Recombinant Rabbit Monoclonal Antibody - Purified



REF Catalog no. 700247

(See product label for lot information)

Clone/PAD: 46H1L12
Isotype: IgG
Gene ID: 6778
Protein Acc. No.: P42226
Qty: 100 µg
Volume: 200 µl
Concentration: 0.5 mg/ml

Formulation

PBS + 0.09% azide

Immunogen

A peptide corresponding to amino acids 636-645 of P42226.

Immunogen sequence

KDGRG[pY]VPAT

Reactivity

This antibody reacts with Human STAT6 [pY641]. Based on sequence similarity, reactivity to Rhesus monkey, orangutan, bovine, canine, mouse, and rat is expected.

Specificity

This antibody is specific for pY641 and does not recognize non-phosphorylated STAT6.

Storage

2-8°C for up to 1 mo, -20°C for long term storage. Avoid repeated freezing and thawing.



Expiration Date

Expires one year from date of receipt when stored as instructed.

Validated Applications:

	Species	Test Material	Concentration
Western Blotting	human	Ramos + IL-4	1-3 µg/ml
Immunofluorescence	human	Ramos + IL-4	4-6 µg/ml
Sandwich ELISA	Detector		1-5 µg/ml

Background

STATs (Signal transducer and activator of transcription) are mediators involved in cytokine signaling. These proteins are phosphorylated on conserved tyrosine residues in response to a specific cytokine signal. Phosphorylated STAT proteins move to the nucleus and transcriptionally regulate downstream target genes. STAT6 is activated primarily by IL-3, IL-4 and IL-13 and it is responsible for anti-apoptotic activity of IL-4 through induction of BCL2L1/BCL-X(L) (1). Upon activation, STAT6 is phosphorylated at tyrosine 641 by Janus Kinase (JAK). More than 35 different STAT6 target genes have been identified, many of which are involved in Th2 associated processes (2).

References

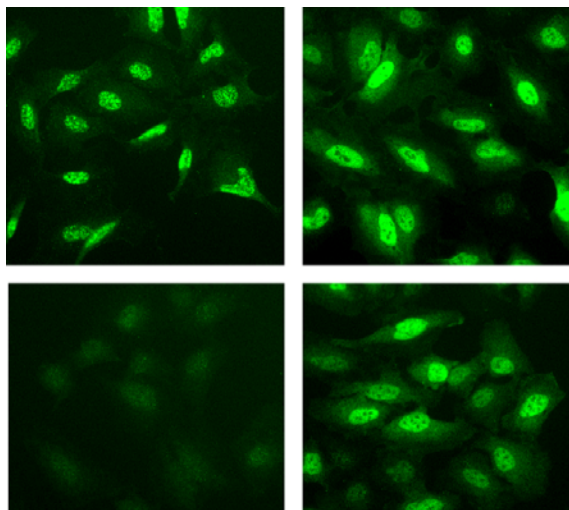
- Quelle FW, et al. (1995) Cloning of murine Stat6 and human Stat6, Stat proteins that are tyrosine phosphorylated in responses to IL-4 and IL-3 but are not required for mitogenesis. Mol Cell Biol. 15: 3336-3343.
- Hebenstreit D, et al. (2006) Signaling mechanisms, interaction partners, and target genes of STAT6. Cytokine Growth Factor Rev. 17: 173-188.

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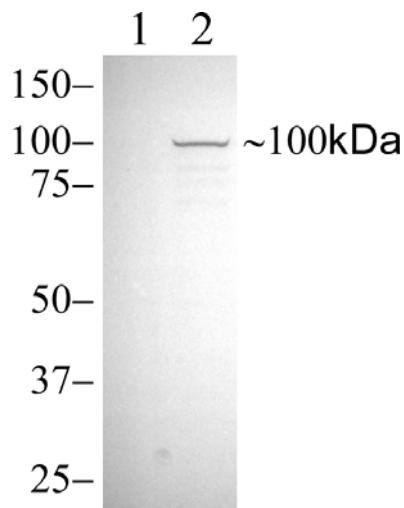
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Immunocytochemistry of Ramos cells labeled with rabbit anti-STAT6 [pY641] (Cat. No. 700247).

Ramos cells were stimulated without (top left) or with (top right) 100 ng/ml IL-4 and labeled with rabbit anti-STAT6 [pY641] (5 µg/ml). Stimulated cells were incubated in the presence of the phosphopeptide used as immunogen (bottom left) or non-phosphopeptide (bottom right). Alexa Fluor® 488 goat anti-rabbit (Cat. No. A11008) at 1:1000 was used as secondary antibody. Cells were permeabilized with 100% methanol for 10 min at -20°C.



Western blot of Ramos lysates labeled with rabbit anti-STAT6 [pY641] (Cat. No. 700247).

Rabbit anti-STAT6 [pY641] (2 µg/ml) was used to label STAT6 [pY641] in Ramos lysates. Lysates were either (1) untreated or (2) treated with IL-4.

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