

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STAT6 when phosphorylated at Y641.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing human STAT6 Y641 site.
Formulation	Supplied as a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

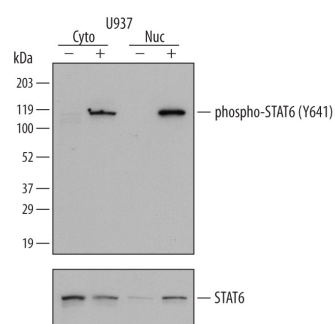
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Simple Western	5 µg/mL	See Below

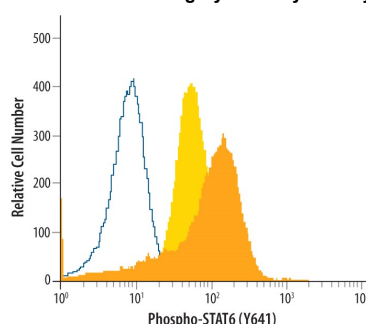
DATA

Western Blot



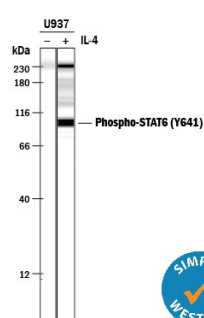
Detection of Human Phospho-STAT6 (Y641) by Western Blot. Western blot shows lysates of U937 human histiocytic lymphoma cell line untreated (-) or treated (+) with 100 ng/mL Recombinant Human IL-4 (Catalog # [204-IL](#)) for 30 minutes. Gels were loaded with 20 µg of cytoplasmic (Cyto) and 10 µg of nuclear extracts (Nuc). PVDF membrane was probed with 0.5 µg/mL Rabbit Anti-Human Phospho-STAT6 (Y641) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3717) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # [HAF008](#)). A specific band for Phospho-STAT6 (Y641) was detected at approximately 110 kDa (as indicated). For additional reference, the membrane was stripped and reprobed with 0.5 µg/mL Human STAT6 Monoclonal Antibody (lower panel, Catalog # [MAB2167](#)). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Intracellular Staining by Flow Cytometry



Detection of STAT6 in Daudi Human Cell Line by Flow Cytometry. Daudi human Burkitt's lymphoma cell line was unstimulated (light orange filled histogram) or treated with 100 ng/mL Recombinant Human IL-4 (Catalog # [204-IL](#)) for 20 minutes, then stained with Rabbit Anti-Human Phospho-STAT6 (Y641) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3717, dark orange filled histogram) or isotype control antibody (Catalog # [AB-105-C](#), open histogram), followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # [F0111](#)). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with methanol.

Simple Western



Detection of Human Phospho-STAT6 (Y641) by Simple Western™. Simple Western lane view shows lysates of U937 human histiocytic lymphoma cell line untreated (-) or treated (+) with 100 ng/mL Recombinant Human IL-4 (Catalog # [204-IL](#)) for 30 minutes, loaded at 0.2 mg/mL. A specific band was detected for Phospho-STAT6 (Y641) at approximately 101 kDa (as indicated) using 5 µg/mL of Rabbit Anti-Human Phospho-STAT6 (Y641) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3717). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

PREPARATION AND STORAGE

Shipping The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C, as supplied.
- 1 month, 2 to 8 °C under sterile conditions after opening.
- 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

Signal Transducer and Activator of Transcription 6 (STAT6) mediates the signaling of cytokines such as IL-4 and IL-13. STAT6 acts as a signal transducer in the cytoplasm and, upon phosphorylation at Y641, translocates to the nucleus and binds to the DNA consensus site TTCN₄GAA. Knockout studies in mice suggest that STAT6 functions in differentiation of T helper 2 (Th2) cells, expression of cell surface markers, and class switch of immunoglobulins.