

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STAT6 when phosphorylated at Y641.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1248D
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phosphopeptide containing human STAT6 Y641 site. Accession # P42226
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

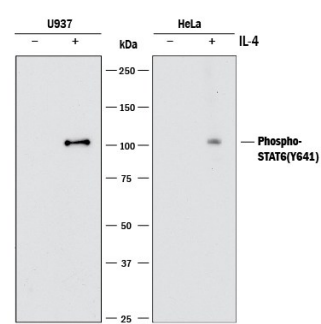
APPLICATIONS

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	1 µg/mL	See Below
Immunocytochemistry	2-10 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below

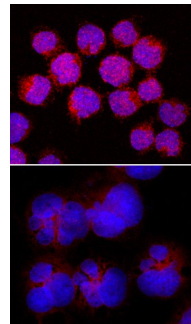
DATA

Western Blot



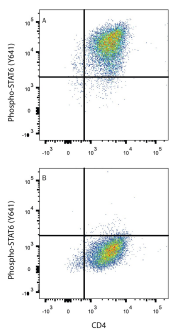
Detection of Human Phospho-STAT6 by Western Blot. Western blot shows lysates of U937 human histiocytic lymphoma cell line and HeLa human cervical epithelial carcinoma cell line untreated (-) or treated (+) with 100 ng/mL Recombinant Human IL-4 (Catalog # 204-IL) for 15 minutes or 2 ng/mL Recombinant Human IL-4 (Catalog # 204-IL) for 20 minutes, respectively. PVDF membrane was probed with 1 µg/mL of Rabbit Anti-Human Phospho-STAT6 (Y641) Monoclonal Antibody (Catalog # MAB3717) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for STAT6 at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Phospho-STAT6 (Y641) in Daudi Human Cell Line. STAT6 phosphorylated at Y641 was detected in immersion fixed Daudi human Burkitt's lymphoma cell line, untreated (lower panel) or treated with Recombinant Human IL-4 (Catalog # 204-IL; upper panel) using Rabbit Anti-Human Phospho-STAT6 (Y641) Monoclonal Antibody (Catalog # MAB3717) at 5 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Intracellular Staining by Flow Cytometry



Detection of STAT6 in Human peripheral blood mononuclear cells (PBMCs) by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) either (A) Th2-stimulated or (B) unstimulated were stained with Rabbit Anti-Human Phospho-STAT6 (Y641) Monoclonal Antibody (Catalog # MAB3717) followed by anti-Rabbit IgG PE-conjugated secondary antibody (Catalog # F0110) and Mouse Anti-Human CD4 APC-conjugated Monoclonal Antibody (Catalog # FAB3791A). Quadrant markers were set based on control antibody staining (Catalog # MAB1050). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with methanol. View our protocol for [Staining Intracellular Molecules](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. 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. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.