

## DESCRIPTION

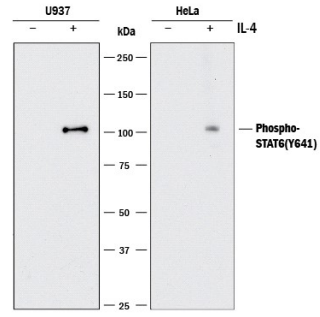
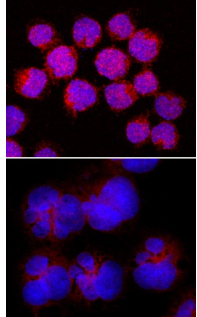
|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human STAT6 when phosphorylated at Y641.  |
| <b>Source</b>             | Recombinant Monoclonal Rabbit IgG Clone # 1248D   |
| <b>Purification</b>       | Protein A or G purified from cell culture supernatant   |
| <b>Immunogen</b>          | Phosphopeptide containing human STAT6 Y641 site.<br>Accession # P42226  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*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    |
|----------------------------|---------------------------|-----------|
| <b>Western Blot</b>        | 1 µg/mL                   | See Below |
| <b>Immunocytochemistry</b> | 2-10 µg/mL                | See Below |

## DATA

| Western Blot   | Immunocytochemistry  |
|--|--|
|  <p><b>Detection of Human Phospho-STAT6 by Western Blot.</b> 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.</p> |  <p><b>Phospho-STAT6 (Y641) in Daudi Human Cell Line.</b> 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 <a href="#">Fluorescent ICC Staining of Non-adherent Cells</a>.</p> |

## PREPARATION AND STORAGE

|                                |   |
|--------------------------------|---|
| <b>Reconstitution</b>          | Reconstitute at 0.5 mg/mL in sterile PBS.   |
| <b>Shipping</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C  |
| <b>Stability &amp; Storage</b> | <p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

## 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 TTCN<sub>4</sub>GAA. 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.