

**Alexa Fluor® 647 anti-STAT6 Phospho (Tyr641)**

**Catalog # /** 4030060 / 100 tests

**Size:** 4030055 / 25 tests

**Clone:** A15137E

**Isotype:** Mouse IgG1,  $\kappa$

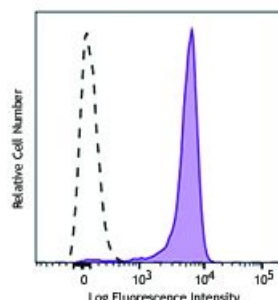
**Immunogen:** Human STAT6 peptide phosphorylated at Tyr 641

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stimulated with (filled histogram) or without (open histogram) IL-4 for 15 minutes, fixed with Fixation Buffer, permeabilized with True-Phos™ Perm Buffer, and intracellularly stained with STAT6 Phospho (Tyr 641) (clone A15137E) Alexa Fluor® 647.

**Applications:**

**Applications:** Intracellular Staining for Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by intracellular flow cytometry. For flow cytometric staining, the suggested use of this reagent is 5  $\mu$ l per million cells or 5  $\mu$ l per 100  $\mu$ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.

**Application Notes:** Human STAT6 has three isoforms; the molecular weights are 94, 82 and 74kD. The immunogen (phosphorylated peptide) is shared by these three isoforms.

Clone A15137E does not react with mouse.

**Description:** STAT6 is a member of the signal transducer and activator of transcription (STAT) family, activating gene expression in response to IL-4 and IL-13 stimulation. Upon cytokine stimulation, the receptor is phosphorylated by the associated Janus Kinases (Jak), followed by recruiting cytoplasmic STAT6. The Tyr641 residue of STAT6 is, in turn, phosphorylated by Jak. Phosphorylated STAT6 forms homodimers, translocates to the nucleus, and regulates transcription of target genes. STAT6 plays crucial roles in differentiation of T helper 2 (Th2) cells, class switch of immunoglobulins in B cells, expression of cell surface markers such as MHC class II, and the development of allergic inflammation.

- Antigen**
- References:**
1. Goenka S, *et al.* 2011. *Immunol. Res.* 50:87.
  2. Wurster AL, *et al.* 2000. *Oncogene* 19:2577.
  3. Akira S. 1999. *Stem Cells* 17:138.
  4. Zamorano J, *et al.* 2005. *J. Immunol.* 174:2843.
  5. David M, *et al.* 2001. *Oncogene* 20:6660.
  6. Takeda K, *et al.* 1996. *Nature* 380:627.