

**Product Name:** Phospho-STAT1 (Y701) (3W10) Rabbit Monoclonal Antibody**Catalog #:** AMRe06018

For research use only.

## Summary

|                      |  |
|----------------------|--|
| <b>Description</b>   | Recombinant rabbit monoclonal antibody   |
| <b>Host</b>          | Rabbit   |
| <b>Application</b>   | WB   |
| <b>Reactivity</b>    | Human  |
| <b>Conjugation</b>   | Unconjugated   |
| <b>Modification</b>  | Phosphorylated   |
| <b>Isotype</b>       | IgG  |
| <b>Clonality</b>     | Monoclonal   |
| <b>Form</b>          | Liquid   |
| <b>Concentration</b> | 0.5mg/ml. The concentration of this product may be batch-dependent.  |
| <b>Storage</b>       | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.  |
| <b>Shipping</b>      | Ice bags   |
| <b>Buffer</b>        | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |
| <b>Purification</b>  | Affinity purification  |

## Application

|                         |                  |
|-------------------------|------------------|
| <b>Dilution Ratio</b>   | WB 1:1000-1:5000 |
| <b>Molecular Weight</b> | 87kDa            |

## Antigen Information

|                          |  |
|--------------------------|--|
| <b>Gene Name</b>         | STAT1  |
| <b>Alternative Names</b> | CANDF7; ISGF 3; Signal transducer and activator of transcription 1; Stat1; STAT91; Transcription factor ISGF-3 components p91/p84; |
| <b>Gene ID</b>           | 6772.0   |
| <b>SwissProt ID</b>      | P42224   |
| <b>Immunogen</b>         | A synthetic phosphopeptide corresponding to residues surrounding Tyr701 of human STAT1   |

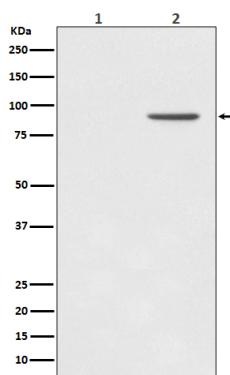
## Background

The Stat1 transcription factor is activated in response to a large number of ligands and is essential for responsiveness to IFN- $\alpha$  and IFN- $\gamma$ . Stat1 protein exists as a pair of isoforms, Stat1 $\alpha$  (91 kDa) and the splice variant Stat1 $\beta$  (84 kDa). In most cells, both isoforms are activated by IFN- $\alpha$ , but only Stat1 $\alpha$  is activated by IFN- $\gamma$ . The inappropriate activation of Stat1 occurs in many tumors. Signal transducer and transcription activator that mediates cellular responses to interferons (IFNs), cytokine KITLG/SCF and other cytokines and other growth factors. Following type I IFN (IFN-alpha and IFN-beta) binding to cell surface receptors, signaling via protein kinases leads to activation of Jak kinases (TYK2 and JAK1) and to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize and associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus (PubMed:28753426). ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of IFN-stimulated genes (ISG), which drive the cell in an antiviral state. In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-phosphorylated (PubMed:26479788). It then forms a homodimer termed IFN-gamma-activated factor (GAF), migrates into the nucleus and binds to the IFN gamma activated sequence (GAS) to drive the expression of the target genes, inducing a cellular antiviral state. Becomes activated in response to KITLG/SCF and KIT signaling. May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4.

## Research Area

Signal Transduction

## Image Data



Western blot analysis of Phospho-STAT1 (Y701) expression in (1) A431 cell lysate; (2) A431 lysate cell treated with EGF.