

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human STAT2 in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human STAT2 Gln679-Phe851 Accession # P52630
<b>Formulation</b>	Lyophilized from a 0.2 µm sterile-filtered solution in phosphate-buffered saline (PBS) with 5% trehalose. See Certificate of Analysis for details.

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunoprecipitation</b>	3 µg/10 <sup>6</sup> cells	WS-1 human fetal skin fibroblast cell line, <a href="#">see our available Western blot detection antibodies</a>
<b>Knockout Validated</b>	STAT2 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in STAT2 knockout HeLa cell line.	

**DATA**

**Western Blot**

**Western Blot Shows Human STAT2 Specificity by Using Knockout Cell Line.** Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and STAT2 knockout HeLa cell line (KO). PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human STAT2 Antigen Affinity-purified Polyclonal Antibody (Catalog # PAF-ST2) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for STAT2 at approximately 110 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Knockout Validated**

**Western Blot Shows Human STAT2 Specificity by Using Knockout Cell Line.** Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line, STAT1 knockout (KO) HeLa cell line, STAT2 KO HeLa cell line, STAT3 KO HeLa cell line, STAT5a KO HeLa cell line, STAT5b KO HeLa cell line, and STAT6 KO HeLa cell line. PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human STAT2 Antigen Affinity-purified Polyclonal Antibody (Catalog # PAF-ST2) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for STAT2 at approximately 110 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 1 mg/mL in deionized water.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<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**

STAT2 (Signal Transducer and Activator of Transcription #2) is a 113 kDa member of the STAT family of cytoplasmic transcription factors. STAT members generally mediate cytokine, growth factor and hormone receptor signal transduction. STAT2 is associated with Type I (α- and β-) Interferon signaling. All STATs contain an N-terminal oligomerization domain, a DNA-binding domain, and an SH2-association region. STAT2 is phosphorylated at Y689 by receptor-associated Janus kinases (JAKs) leading to STAT2 dimerization and subsequent translocation to the nucleus to activate gene transcription.