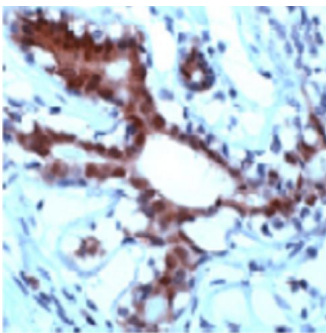


STAT5a Polyclonal Antibody

Product Specifications	
Catalog Number:	905-556
Host:	Rabbit
Species Reactivity:	Human, mouse, and rat (others not tested)
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: Yes Gel Supershift: Yes IHC: 1:200 for 10 min at RT <i>Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.</i>
Predicted m.w.:	~90 kDa
Concentration:	See product label
Purification:	Affinity Purified
Format:	PBS, pH 7.4, with BSA and sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at 4 °C
Immunogen:	Synthetic peptide derived from the Carboxy-terminal of human STAT5a
Related Products :	
SAB-300	Goat anti-Rabbit IgG Polyclonal Antibody, HRP Conjugate
KAP-TF015	STAT5A/B (phospho-Tyr694/Tyr699) Polyclonal Antibody
905-673	STAT5 A/B (phospho-Tyr695/699) Monoclonal Antibody (5G4)
KAP-TF011	STAT1 (phospho-Tyr701) Polyclonal Antibody
905-779-100	STAT3 (phospho-Ser727) Polyclonal Antibody



Breast carcinoma stained with STAT5a Polyclonal Antibody (Catalog #905-556)

Background:

The signal transducer and activator of transcription (STAT) proteins serve as both cytoplasmic signaling and nuclear transcription activating proteins. STAT family proteins are comprised of an N-terminal domain that facilitates binding of cofactors, central DNA binding and SH2 domains, and a C-terminal transactivation domain¹. In response to a specific cytokine signal, STAT proteins are phosphorylated on conserved tyrosine residues. Phosphorylated STAT proteins dimerize via their SH2 domains and move to the nucleus. The STAT dimers bind to specific DNA elements resulting in transcriptional regulation of downstream target genes. STAT5 consists of two highly related genes encoding STAT5a and STAT5b proteins, which are 96% similar at the amino acid level². STAT5 is activated by phosphorylation at Tyr694 (STAT5a) or Tyr699 (STAT5b) in response to prolactin, growth hormone, thrombopoietin, erythropoietin, GM-CSF, IL-2, IL-3, IL-5, IL-7, IL-9, and IL-15 signals³⁻⁵. Studies in knockout mice indicate STAT5a is the principal mediator of mammary gland development and lactogenesis^{2,6}.

References:

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4. Moriggl, R., *et al.* (1996) *Mol Cell Biol.* **16**, 5691-5700.
5. Mui, A., *et al.* (1996) *EMBO J.* **15**, 2425-2431.
6. Liu, X., *et al.* (1997) *Gene Dev.* **11**, 179-186.

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