

## Product datasheet for **AP01696PU-N**

### STAT5A pTyr694 Rabbit Polyclonal Antibody

#### Product data:

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Applications:           | IHC, WB   |
| Recommended Dilution:   | <b>Western Blot:</b> 1/500-1/1000.<br><b>Immunohistochemistry on paraffin sections</b> 1/50-1/200.  |
| Reactivity:             | Human, Mouse, Rat   |
| Host:                   | Rabbit  |
| Clonality:              | Polyclonal  |
| Specificity:            | This antibody detects endogenous levels of STAT5A pTyr694 protein.  |
| Formulation:            | Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative.<br>State: Aff - Purified<br>State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE). |
| Concentration:          | 1.0 mg/ml   |
| Purification:           | Affinity Chromatography using epitope-specific immunogen.   |
| Conjugation:            | Unconjugated  |
| Storage:                | Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.<br>Avoid repeated freezing and thawing.   |
| Stability:              | Shelf life: One year from despatch.   |
| Predicted Protein Size: | ~ 91 kDa  |
| Gene Name:              | signal transducer and activator of transcription 5A   |
| Database Link:          | <a href="#">Entrez Gene 6776 Human P42229</a>   |



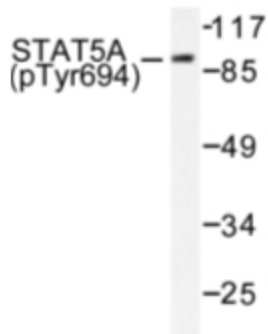
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**Background:**

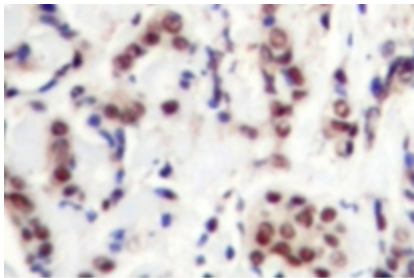
Stat5 (signal transducers and activators of transcription 5) is important in regulating T cell functions involving the receptors for Interleukin-2 (IL-2). IL-2 stimulates the rapid phosphorylation of both serine and tyrosine residues of Stat5 $\alpha$  and Stat5 $\beta$  in human T lymphocytes and in several IL-2-responsive lymphocytic cell lines. IL-2 differentially induces serine phosphorylation of Stat5 $\alpha$  and Stat5 $\beta$  on Ser 726 and Ser 731, respectively. Stat5 $\beta$  is preferentially phosphorylated and displays more protracted serine phosphorylation kinetics than Stat5 $\alpha$ . Both the acid-rich region and the COOH terminus of IL-2R $\beta$  can independently mediate IL-2-induced Stat5 $\alpha/\beta$  serine phosphorylation, suggesting that Stat5 $\alpha/\beta$  serine phosphorylation occurs at a postreceptor level. Stat5 $\alpha$  is phosphorylated on Tyr 694 in a prolactin-sensitive manner, whereas serine phosphorylation is constitutive. Activation of Stat5 by IL-2 may help govern the biological effects of IL-2 during the immune response. Ser 779 is constitutively phosphorylated in the mammary gland, and Ser 725 phosphorylation influences prolactin-stimulated in vitro DNA binding activity.

**Synonyms:**

STAT-5, STAT-5A, Mammary gland factor, MGF

**Product images:**

Western blot (WB) analysis of STAT5A ptyr694 antibody (Cat.-No.: AP01696PU-N) in extracts from HeLa cells treated with EGF.



Immunohistochemistry (IHC) analyzes of STAT5A ptyr694 antibody (Cat.-No.: AP01696PU-N) in paraffin-embedded human breast carcinoma tissue.