

## Product datasheet for **AP06327PU-N**

### STAT3 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  |
| Immunogen:              | Synthetic peptide, corresponding to amino acids 680-720 of Human Stat3.   |
| Specificity:            | This antibody detects endogenous levels of STAT3 protein.<br>(region surrounding Pro699)  |
| Formulation:            | Phosphate buffered saline (PBS), pH~7.2<br>State: Aff - Purified<br>State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE)<br>Preservative: 0.05% Sodium Azide |
| Concentration:          | 1.0 mg/ml   |
| Purification:           | Affinity Chromatography using epitope-specific immunogen  |
| Conjugation:            | Unconjugated  |
| Storage:                | Store 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: | ~88 kDa   |
| Gene Name:              | signal transducer and activator of transcription 3  |
| Database Link:          | <a href="#">Entrez Gene 6774 Human P40763</a>   |



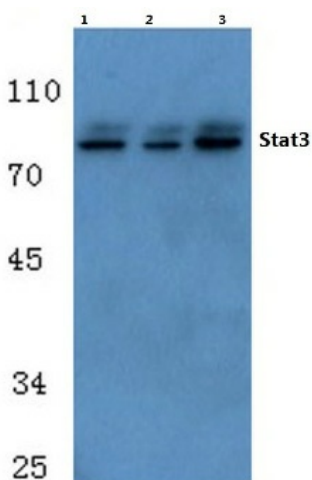
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**Background:**

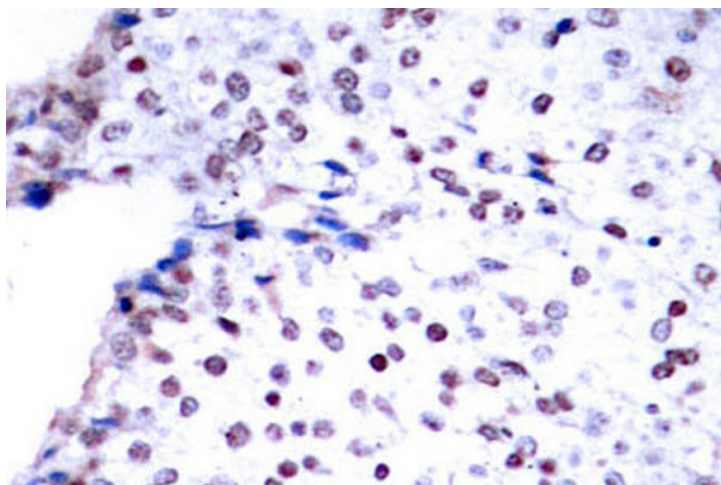
Membrane receptor signaling by various ligands, including interferons and growth hormones such as EGF, induces activation of JAK kinases which then leads to tyrosine phosphorylation of the various Stat transcription factors. Stat1 and Stat2 are induced by IFN- $\alpha$  and form a heterodimer which is part of the ISGF3 transcription factor complex. Although early reports indicate Stat3 activation by EGF and IL-6, it has been shown that Stat3 $\beta$  appears to be activated by both while Stat3 $\alpha$  is activated by EGF, but not by IL-6. Highest expression of Stat4 is seen in testis and myeloid cells. IL-12 has been identified as an activator of Stat4. Stat5 has been shown to be activated by Prolactin and by IL-3. Stat6 is involved in IL-4 activated signaling pathways.

**Synonyms:**

STAT-3, Acute-phase response factor, APRF

**Product images:**

Western blot analysis of STAT3 Antibody at 1/500 dilution: Lane 1: HepG2 whole cell lysate treated with IFN-alpha. Lane 2: Raw264.7 whole cell lysate treated with IFN-alpha. Lane 3: H9C2 whole cell lysate treated with IFN-alpha.



Immunohistochemistry analysis of STAT3 Antibody in paraffin-embedded human breast carcinoma tissue.