

# Anti-STAT3 Antibody

## RT1591



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IP, IF, IHC-P
<b>Molecular Wt:</b>	86/91kDa

**Description:** 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.

**Immunogen:** Amino acids 50-240 of Stat3 p92 of human origin.

**Positive control:** 293T, K-562

**Subcellular location:** Cytoplasm, Nucleus

**Database links:** SwissProt: P40763 Human

### Recommended Dilutions:

<b>WB</b>	1:100-1:1,000
<b>IP</b>	1-2 $\mu$ g per 100-500 $\mu$ g of total protein (1 ml of cell lysate)
<b>IF</b>	1:50-1:500
<b>IHC-P</b>	1:50-1:500

**Storage Buffer:** 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**Storage Instruction:** Store at +4 $^{\circ}$ C

**Purity:** Immunogen affinity purified.

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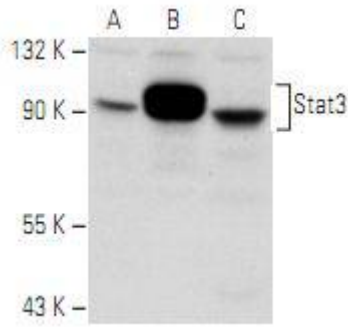
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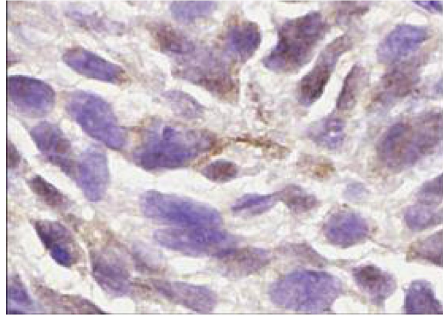
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## Images



**Fig1:** Western blot analysis of Stat3 expression in non-transfected 293T (A), human Stat3 transfected 293T (B) and K-562 (C) whole cell lysates.



**Fig2:** Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor showing cytoplasmic and nuclear staining.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Kaminski, K.A., et al. 2012. Interleukin 6 is not necessary for STAT3 phosphorylation and myocardial hypertrophy following short term  $\beta$ -adrenergic stimulation. *Adv. Med. Sci.* 57: 94-99
2. Zhang, W.N., et al. 2012. CUEDC2 (CUE domain-containing 2) and SOCS3 (suppressors of cytokine signaling 3) cooperate to negatively regulate Janus kinase 1/signal transducers and activators of transcription 3 signaling. *J. Biol. Chem.* 287: 382-392.

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