

# Anti-Stat1 Antibody

Catalog # AN1977

#### Specification

## Anti-Stat1 Antibody - Product Information

Application	WB, IHC
Primary Accession	<u>P42224</u>
Reactivity	Bovine
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG1
Calculated MW	87335
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### **Anti-Stat1 Antibody - Additional Information**

Gene ID Other Names Stat1a, Stat1b, ISGF3, Stat1alpha, Stat1beta

**Dilution** WB~~1:1000 IHC~~1:100~500

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

6772

**Precautions** Anti-Stat1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping Blue Ice

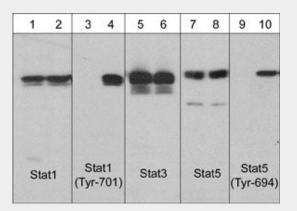
### Anti-Stat1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

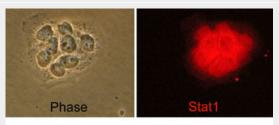
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### Anti-Stat1 Antibody - Images





Western blot analysis of human A431 cells untreated (lanes 1, 3, 5, 7 & 9) or treated with EGF (100 nM) for 60 min (lanes 2, 4, 6, 8 & 10). The blots were probed with anti-Stat1 (lanes 1 & 2), anti-Stat1 (Tyr-701) (lanes 3 & 4), anti-Stat3 (lanes 5 & 6), anti-Stat5 (lanes 7 & 8), and anti-Stat5 (Tyr-694) (lanes 9 & 10).



Immunocytochemical labeling of Stat1 in human A431 cells. The cells were labeled with mouse monoclonal Stat1 (SM2491) antibody (Right), then the antibody was detected using appropriate secondary antibody conjugated to DyLight® 594. Corresponding phase image is shown to the left.

### Anti-Stat1 Antibody - Background

The stat proteins function both as cytoplasmic signal transducers and as activators of transcription. Stat1 is expressed as two variants of 84 and 91 kDa. Stat1 proteins contain SH2 and SH3 domains, and are components of the interferon-stimulated gene factor 3 (ISGF3) complex. This complex is the primary transcription activator induced by the binding of interferon to its receptors. In response to activation by various cytokines and growth factors, stat1 subunits become phosphorylated at tyrosine 701. This leads to translocation of stat1 to the nucleus, resulting in formation of an active ISGF3 complex. Active ISGF3 modulates the transcription of the interferon-stimulated genes. Thus, phosphorylation of Tyr-701 is critical for gene expression mediated by various cytokines and growth factors.