Stat1 Antibody (#9172)

For optimal ChIP results, use 10 μl of antibody and 10 μg of chromatin (approximately 4 x 10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

<table>
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<th>Application</th>
<th>Dilution</th>
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<tbody>
<tr>
<td>Western Blotting</td>
<td>1:1000</td>
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<tr>
<td>Immunoprecipitation</td>
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<tr>
<td>Chromatin IP</td>
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</table>

Storage:

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity:

Stat1 Antibody detects endogenous levels of total Stat1 protein. The antibody detects both Stat1α (91kDa) and Stat1β (84 kDa) isoforms.

Species Reactivity:

Human, Mouse, Rat, Monkey

Species predicted to react based on 100% sequence homology:

Bovine, Dog

Source / Purification:

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human Stat1. Antibodies are purified by protein A and peptide affinity chromatography.

Background:

The Stat1 transcription factor is activated in response to a large number of ligands (1) and is essential for responsiveness to IFN-α and IFN-γ (2,3). Phosphorylation of Stat1 at Tyr701 induces Stat1 dimerization, nuclear translocation, and DNA binding (4). Stat1 protein exists as a pair of isoforms, Stat1α (91 kDa) and the splice variant Stat1β (84 kDa). In most cells, both isoforms are activated by IFN-α, but only Stat1α is activated by IFN-γ. The inappropriate activation of Stat1 occurs in many tumors (5). In addition to tyrosine phosphorylation, Stat1 is also phosphorylated at Ser727 through a p38 mitogen-activated protein kinase (MAPK)-dependent pathway in response to IFN-α and other cellular stresses (6). Serine phosphorylation may be required for the maximal induction of Stat1-mediated gene activation.


For Research Use Only. Not For Use In Diagnostic Procedures.

IMPORTANT: For primary antibodies recommended for western blotting applications, we recommend incubating the membrane with diluted antibody at 4°C with gentle shaking overnight. Please refer to the western blot protocol found on the product web page for the antibody-specific diluent recommendation.

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#9172

Stat1 Antibody

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