Phospho-Stat3-Y705 pAb

**Catalog No.** AP0070

**Category** Phosphorylated Antibodies

**Applications** WB, IHC, IF

**Cross-reactivity** Human, Mouse, Rat

**Observed MW** 105kDa

**Calculated MW** 83kDa/87kDa/88kDa

**Immunogen Information**

**Immunogen** A synthetic phosphorylated peptide around Y705 of human Stat3 (NP_644805.1).

**Gene ID** 6774

**Swiss prot** P40763

**Synonyms** STAT3; ADMIO; ADMIO1; APRF; HIES; signal transducer and activator of transcription 3

**Product information**

**Source** Rabbit

**Isotype** IgG

**Purification method** Affinity purification

**Storage** Store at -20℃. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH 7.3.

**Background**

The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. Mutations in this gene are associated with infantile-onset multisystem autoimmune disease and hyper-immunoglobulin E syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Western blot analysis of extracts of various cell lines, using Phospho-Stat3-Y705 antibody (AP0070) at 1:1000 dilution. HeLa cells were treated by IFN-α (100 ng/ml) at 37°C for 30 minutes after serum-starvation overnight. HT-29 cells were treated by UV at room temperature for 15-30 minutes. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25μg per lane. Blocking buffer: 3% BSA. Detection: ECL Basic Kit (RM00020). Exposure time: 30s.

**Recommended Dilutions**

<table>
<thead>
<tr>
<th>Technique</th>
<th>Dilution</th>
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<tbody>
<tr>
<td>WB</td>
<td>1:500 - 1:2000</td>
</tr>
<tr>
<td>IHC</td>
<td>1:50 - 1:200</td>
</tr>
<tr>
<td>IF</td>
<td>1:50 - 1:200</td>
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Immunohistochemistry of paraffin-embedded Human liver cancer using Phospho-Stat3-Y705 antibody (AP0070) at dilution of 1:100 (40x lens).

Immunohistochemistry of paraffin-embedded Mouse liver using Phospho-Stat3-Y705 antibody (AP0070) at dilution of 1:100 (40x lens).

Immunohistochemistry of paraffin-embedded Rat brain using Phospho-Stat3-Y705 antibody (AP0070) at dilution of 1:100 (40x lens).
Immunofluorescence analysis of rat brain using Phospho-Stat3-Y705 antibody (AP0070) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

Immunofluorescence analysis of mouse brain using Phospho-Stat3-Y705 antibody (AP0070) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.