

## Mouse Monoclonal Antibody to

# STAT3 (phospho-Tyr 705)

## clone 9E12

## biotinylated

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Order No.: **0036-100BIOTIN/STAT3-9E12**

Size (µg) 100

Lot No.: 0036S

04/080507F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse, dog	WB, ELISA, IP, ICC, IHC	92 kDa	HepG2	phosphotyrosine 705 ...A P pY L K...	phosphopeptide conjugated to KLH

### Background and Specificity:

The STAT proteins serve as both cytoplasmic signal transducers and nuclear activators of transcription. STATs are mediators involved in cytokine signalling. In response to a specific cytokine signal, STAT proteins are phosphorylated on conserved tyrosine residues. Phosphorylated STAT proteins dimerize via their SH2 domains and move to the nucleus. The STAT dimers bind to specific DNA elements resulting in transcriptional regulation of downstream target genes.

STAT3 is activated by tyrosine phosphorylation at residue Tyr 705 in cells treated with interleukin 6 or EGF. Activated STAT3 can bind to DNA either as homodimer or as heterodimer with STAT1.

**Mab STAT3-9E12** specifically recognizes STAT3 phosphorylated at Tyr 705. The antibody does not crossreact with the non-phosphorylated form of STAT3 nor with unrelated tyrosine-phosphorylated proteins. Mab STAT3-9E12 is particularly suitable for Western blot and ELISA applications.

### Related Products

**mab to STAT1 (phospho-Ser 727)**

#0176-100/STAT1-12C5

**mab to STAT3 (phospho-Ser 727)**

#0145-100/STAT3-23G5

**mab to STAT5 A/B (phospho-Tyr 695/699)**

#0121-100/STAT5-5G4

**mab to STAT6 (phosph-Tyr 641)**

#0079-100/STAT6-16E12

**mab to STAT6 (aa 630-650)**

#0063-100/STAT6-8C12

**Purification:** The antibody was purified from serum-free cell culture supernatant by subsequent thiophilic adsorption and size exclusion chromatography.

**Formulation:** liquid; 0.5 mg/ml in PBS/0.09% Na-Azide/PEG and Sucrose

**Reconstitution:**

**Stability:** Aliquote and freeze in liquid nitrogen; reconstituted antibody can be stored frozen at -80°C up to 1 year. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.

**Avoid repeated freeze / thaw cycles.**

**Positive Control:** #0812: Cell lysate from pervanadate-treated HepG2 cells

**Immunoblotting:** 0.5 µg/ml for HRPO/ECL detection  
**Recommended blocking buffer:** Casein/Tween 20 based blocking and blot incubation buffer, e.g. nanoTools product #3031-500/CPPT or #3031-3000/CPPT.

**Immunoprecipitation:** use at 1 - 10 µg per 10<sup>6</sup> pervanadate treated HepG2 cells

**Immunocytochemistry:** use at 1 - 10 µg/ml

**ELISA:** use at 0.05 µg/ml

**All products are supplied for research and investigational use only. Not for use in humans or laboratory animals.**