

Stat1 Blocking Peptide (9175 Specific)

100 µg
(100 sections)



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

Background: Stat1, while activated in response to a large number of ligands (1), appears to be 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 has two isoforms, Stat1 α (91 kDa) and the splice variant Stat1 β (84 kDa). In most cells, both isoforms are activated by IFN- α , but only Stat1 α is activated by IFN- γ . Stat1 has been found to be inappropriately activated in many tumors (5). In addition to tyrosine phosphorylation, Stat1 is phosphorylated through a p38 mitogen-activated protein kinase (MAPK)-dependent pathway at Ser727 in response to IFN- α and other cellular stresses (6). Serine phosphorylation may be required for the maximal induction of Stat1-mediated gene activation.

Description: This peptide is used to block Stat1 (42H3) Rabbit mAb #9175 reactivity. Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptide dot blot protocols.

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide reacts with Stat1 (42H3) Rabbit mAb #9175 by peptide dot blot.

Directions for Use: Recommended antibody dilutions can be found on the relevant product data sheet.

Applications: Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptide dot blot protocols.

Background References:

- (1) Heim, M.H. (1999) *J. Recept. Signal. Transduct. Res.* 19, 75–120.
- (2) Durbin, J.E. et al. (1996) *Cell* 84, 443–450.
- (3) Meraz, M.A. et al. (1996) *Cell* 84, 431–442.
- (4) Ihle, J.N. et al. (1994) *Trends Biochem. Sci.* 19, 222–227.
- (5) Frank, D.A. (1999) *Mol. Med.* 5, 432–456.
- (6) Wen, Z. et al. (1995) *Cell* 82, 241–250.

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA, 5% glycerol, and 1% DMSO. Store at -20°C.

Companion Products:

Stat1 (42H3) Rabbit mAb (Human Specific) #9175

Jak/Stat Signaling Pathway

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E—ELISA E-P—ELISA Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebra fish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.