

SignalSlide™ Phospho-Stat1/3/5 IHC Controls

✓ 1 Pack
(5 slides)

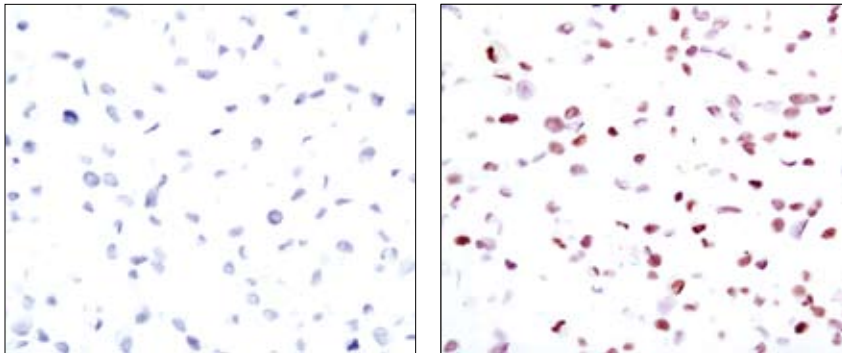
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This product is for *in vitro* research use only and is not intended for use in humans or animals.

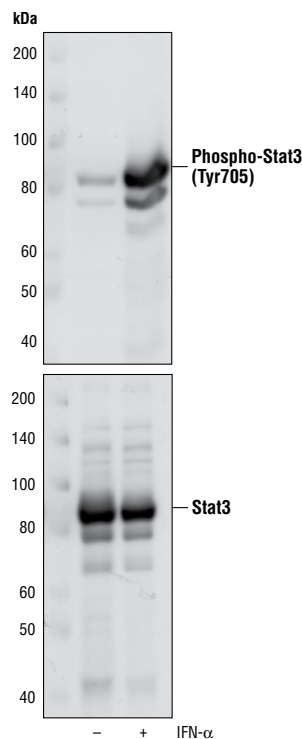


Immunohistochemical analysis of paraffin-embedded 786-0 cells, untreated (left) or IFN- α treated (right), using Phospho-Stat3 (Tyr705) (D3A7) Rabbit mAb #9145.

Description: Each control slide contains formalin fixed, paraffin-embedded 786-0 cells, both untreated and treated with interferon alpha (IFN- α), that serve as a control for Phospho-Stat1 (Tyr701), Phospho-Stat3 (Tyr705) and Phospho-Stat5 (Tyr694) immunostaining. Western blot analysis was performed on extracts derived from the same cells to verify the efficacy of the IFN-alpha treatment. SignalSlide™ Phospho-Stat1/3/5 IHC Control slides have not been tested as controls for Phospho-Stat1 (Ser727) or Phospho-Stat3 (Ser727) immunostaining.

Background: The Stat3 transcription factor is an important signaling molecule for many cytokines and growth-factor receptors (1) and is required for murine fetal development (2). Stat3 is constitutively activated in a number of human tumors (3,4) and possesses oncogenic potential (5) and anti-apoptotic activities (3). Stat3 is activated by phosphorylation at Tyr705, which induces dimerization, nuclear translocation and DNA binding (6,7). Transcriptional activation seems to be regulated by phosphorylation at Ser727 through the MAPK or mTOR pathways (8,9). Stat3 isoform expression appears to reflect biological function as the relative expression levels of Stat3 α (86 kDa) and Stat3 β (79 kDa) depend on cell type, ligand exposure or cell maturation stage (10). It is notable that Stat3 β lacks the serine phosphorylation site within the carboxy-terminal transcriptional activation domain (8).

Applications: These slides are intended for use in immunohistochemical assays. Please see our Companion Products list for products that can be used with these slides.



Western blot analysis of extracts from 786-0 cells, untreated or IFN- α treated, using Phospho-Stat3 (Tyr705) (D3A7) Rabbit mAb #9145 (top) or Stat3 (79D7) Rabbit mAb #4904 (bottom). This assay serves as a control for the efficacy of the IFN- α treatment.

Storage: Store at 4° C.

Optimal staining is achieved if slides are stained following CST's standard IHC protocols and are used within 8 weeks of assay date; however, signals may persist beyond two months.

Companion Products:

Phospho-Stat3 (Tyr705) (D3A7) Rabbit mAb #9145
Phospho-Stat3 (Tyr705) Blocking Peptide #1195
Stat3 (79D7) Rabbit mAb #4904
Stat3 (124H6) Mouse mAb #9139
Stat3 Antibody #9132
Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb #9167
Phospho-Stat1 (Tyr701) Blocking Peptide #1038
Stat1 (42H3) Rabbit mAb (Human Specific) #9175
Stat1 Blocking Peptide (9175 Specific) #1079
Phospho-Stat5 (Tyr694) (C11C5) Rabbit mAb #9359

Background References:

- (1) Heim, M.H. (1999) *J. Recept. Signal Transduct. Res.* 19, 75–120.
- (2) Takeda, K. et al. (1997) *Proc. Natl. Acad. Sci. USA* 94, 3801–3804.
- (3) Catlett-Falcone, R. et al. (1999) *Immunity* 10, 105–115.
- (4) Garcia, R. and Jove, R. (1998) *J. Biomed. Sci.* 5, 79–85.
- (5) Bromberg, J.F. et al. (1999) *Cell* 98, 295–303.
- (6) Darnell Jr., J.E. et al. (1994) *Science* 264, 1415–1421.
- (7) Ihle, J.N. (1995) *Nature* 377, 591–594.
- (8) Wen, Z. et al. (1995) *Cell* 82, 241–250.
- (9) Yokogami, K. et al. (2000) *Curr. Biol.* 10, 47–50.
- (10) Biethahn, S. et al. (1999) *Exp. Hematol.* 27, 885–894.

#8105

Certificate of Non-Hazardous Material

This product was prepared by Cell Signaling Technology, Inc., 3 Trask Lane, Danvers, MA 01923, USA and contains no hazardous material at a reportable concentration according to United States 29 CFR 1910.1200, OSHA Standard and EC Directive 91/155/EC.

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