

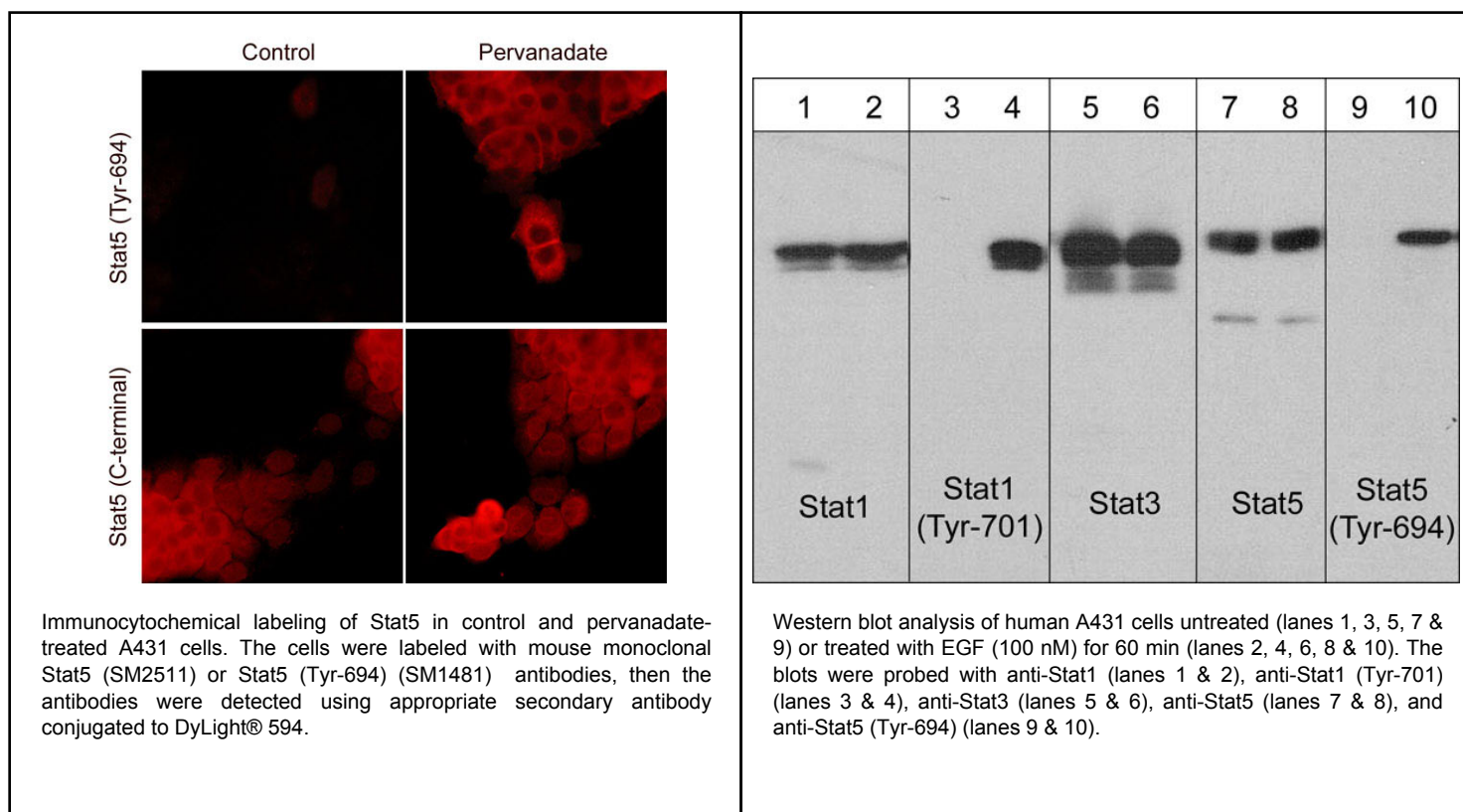
Kit Summary

The Stat phospho-regulation antibody sampler kit can be used to examine the level of phosphorylation of Stat1 and Stat5, as well as the total expression level of Stat1, Stat3, and Stat5.

Kit Components

Cat. #	Description	Product Type	Size	Applications	Species Reactivity	WB Dilution
SM2491	Stat1	Mouse mAb	50 µl	WB, E, IP, ICC	Hu, Rt, Ms	1:1000
SM1351	Stat1 (Tyr-701), phospho-specific	Mouse mAb	50 µl	WB, E	Hu, Rt, Ms	1:1000
SM2631	Stat3 (N-terminal region)	Mouse mAb	50 µl	WB, E, IP	Hu, Rt, Ms	1:1000
SM2511	Stat5 (C-terminal region)	Mouse mAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000
SM1481	Stat5 (Tyr-694), phospho-specific	Mouse mAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, IP = Immunoprecipitation, IHC = Immunohistochemistry, FC = Flow Cytometry
Species: H = Human, R = Rat, Ms = Mouse, C = Chicken, F = Fish, Fr = Frog, Rb = Rabbit



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Background

The Stat family of proteins (Stat1-6) function both as cytoplasmic signal transducers and as activators of transcription in response to cytokines and growth factor receptors. Stat1 is expressed as two variants of 84 and 91 kDa that become phosphorylated at Tyr-701 in response to cytokines. Active Stat1 assembles into the interferon-stimulated gene factor 3 complex. Stat3 is expressed as two variants, Stat3 α (92 kDa) and Stat3 β (79 kDa) that differ in expression and activity. Both are activated by phosphorylation at Tyr-705, which induces dimerization, nuclear translocation and DNA binding. Stat3 α transcriptional activation may be regulated by phosphorylation at Ser-727 through the MAPK pathway, while Stat3 β lacks this serine site. Stat5 is activated in response to a wide variety of ligands including IL-2, GM-CSF, growth hormone and prolactin. Phosphorylation at Tyr-694 is required for Stat5A activation and this Stat is constitutively active in some leukemic cell types. Both Stat5A (Tyr-694) and Stat5B (Tyr-699) are independently regulated and activated in various cell types.

Background References

Darnell, J.E. (1997) Science 277:1630.

Fu, X.Y. et al. (1993) Cell 74:1135.

Buffer and Storage

Mouse monoclonal antibodies are supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store all at -20°C . Stable for 1 year.

Product Citations

Cat. # **Citation & Application**

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