

#4441 Store at -20C

Phospho-Stat2 (Tyr690) Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	113	Rabbit	#P52630	6773

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Phospho-Stat2 Antibody detects endogenous levels of human Stat2 only when phosphorylated at Tyr690. The antibody does not significantly cross-react with corresponding phospho-tyrosine sites on other Stat proteins.	
Species predicted to react based on 100% sequence homology:	Rat, Bovine	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr690 of human Stat2 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Stat2 (113 kDa), originally purified from the nuclei of alpha-interferon-treated cells, is critical to the transcriptional responses induced by type I interferons, IFN-alpha/beta (1,2). Knockout mice with a targeted disruption of Stat2 have higher susceptibility to viral infection and altered responses to type I interferons (3). Stat2 is rapidly activated by phosphorylation at Tyr690 in response to stimulation by IFN-alpha/beta via associations with receptor-bound Jak kinases (4). Unlike other Stat proteins, Stat2 does not form homodimers. Instead, activated Stat2 forms a heterodimer with Stat1 and translocates to the nucleus. There, it associates with the DNA-binding protein p48 and forms the transcriptional activator complex, interferon-stimulated gene factor 3 (ISGF3), promoting transcription from the ISRE (5).	
Background References	<ol style="list-style-type: none"> 1. Fu, X.Y. et al. (1992) <i>Proc Natl Acad Sci U S A</i> 89, 7840-3. 2. Ihle, J.N. (2001) <i>Curr Opin Cell Biol</i> 13, 211-7. 3. Park, C. et al. (2000) <i>Immunity</i> 13, 795-804. 4. Improt, T. et al. (1994) <i>Proc Natl Acad Sci U S A</i> 91, 4776-80. 5. Horvath, C.M. et al. (1996) <i>Mol Cell Biol</i> 16, 6957-64. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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