

#88410 Store at -20°C

Phospho-Stat2 (Tyr690) (D3P2P) Rabbit mAb



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Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC, FC-FP	H R	Endogenous	97, 113	Rabbit IgG	#P52630	6773

Product Usage Information

The CUT&RUN dilution was determined using CUT&RUN Assay Kit #86652.

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:50 - 1:100
Flow Cytometry (Fixed/Permeabilized)	1:100 - 1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #23078.

Specificity / Sensitivity

Phospho-Stat2 (D3P2P) Rabbit mAb recognizes endogenous levels of Stat2 protein only when phosphorylated at Tyr690.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phospho-peptide corresponding to residues surrounding Tyr690 of human Stat2 protein.

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

1. Fu, X.Y. et al. (1992) *Proc Natl Acad Sci U S A* 89, 7840-3.
2. Ihle, J.N. (2001) *Curr Opin Cell Biol* 13, 211-7.
3. Park, C. et al. (2000) *Immunity* 13, 795-804.
4. Improt, T. et al. (1994) *Proc Natl Acad Sci U S A* 91, 4776-80.
5. Horvath, C.M. et al. (1996) *Mol Cell Biol* 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 **IF-IC:** Immunofluorescence (Immunocytochemistry)
FC-FP: Flow Cytometry (Fixed/Permeabilized)

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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