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Phospho-Stat3 (Ser727) (D4X3C) Rabbit mAb (PE Conjugate)



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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:Source/Isotype:UniProt ID:Entrez-Gene Id:FC-FPHEndogenousRabbit IgG#P407636774

Product Usage
InformationApplicationDilutionFlow Cytometry (Fixed/Permeabilized)1:50

Storage Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the

antibodies. Protect from light. Do not freeze.

Specificity / Sensitivity Phospho-Stat3 (Ser727) (D4X3C) Rabbit mAb (PE Conjugate) recognizes endogenous levels of Stat3

protein only when phosphorylated at Ser727.

Species predicted to react based on 100% sequence homology:

Background References

Mouse, Rat

Source / PurificationMonoclonal antibody is produced by immunizing animals with a synthetic phospho-peptide corresponding

to residues surrounding Ser727 of human Stat3 protein.

Product Description This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct

flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-

reactivity as the unconjugated Phospho-Stat3 (Ser727) (D4X3C) Rabbit mAb #34911.

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). Research studies have shown that Stat3 is constitutively activated in a number of human tumors (3,4) and possesses oncogenic potential (5) and antiapoptotic 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 $\text{Stat3}\alpha$ (86 kDa) and $\text{Stat3}\beta$ (79 kDa) depend on cell type, ligand exposure, or cell maturation stage (10). It is notable that $\text{Stat3}\beta$ lacks the serine

phosphorylation site within the carboxy-terminal transcriptional activation domain (8).

pnospnorylation site within the carboxy-terminal transcriptional activation domain (8)

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5. Bromberg, J.F. et al. (1999) Cell 98, 295-303.

6. Darnell, J.E. et al. (1994) Science 264, 1415-21.

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9. Yokogami, K. et al. (2000) Curr Biol 10, 47-50.

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Species Reactivity Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key 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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