



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at +4C  
#13223

## Phospho-Stat4 (Tyr693) (D2E4) Rabbit mAb (PE Conjugate)

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

<b>Applications:</b> FC-FP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q14765	<b>Entrez-Gene Id:</b> 6775
-------------------------------	-------------------------	-----------------------------------	--------------------------------------	-------------------------------	--------------------------------

### Product Usage Information

#### Application

Flow Cytometry (Fixed/Permeabilized)

#### Dilution

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-Stat4 (Tyr693) (D2E4) Rabbit mAb (PE Conjugate) recognizes endogenous levels of Stat4 protein only when phosphorylated at Tyr693.

### Species predicted to react based on 100% sequence homology

Mouse, Rat, Monkey, Pig

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr693 of human Stat4 protein.

### Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-Stat4 (Tyr693) (D2E4) Rabbit mAb #4134.

### Background

The Jak-Stat signaling pathway is utilized by a large number of cytokines, growth factors, and hormones (1). Receptor-mediated tyrosine phosphorylation of Jak family members triggers phosphorylation of Stat proteins, resulting in their nuclear translocation, binding to specific DNA elements, and subsequent activation of transcription. The remarkable range and specificity of responses regulated by the Stats is determined, in part, by the tissue-specific expression of different cytokine receptors, Jaks, and Stats, as well as by the combinatorial coupling of various Stat members to different receptors (2). Stat4 is predominantly expressed in the spleen, thymus, and testis and has been most extensively investigated as the mediator of IL-12 responses (3-8). Activation of Stat4 is associated with phosphorylation at Tyr693 (9).

### Background References

1. Darnell, J.E. et al. (1994) *Science* 264, 1415-1421.
2. Leonard, W.J. and O'Shea, J.J. (1998) *Annu. Rev. Immunol.* 16, 293-322.
3. Zhong, Z. et al. (1994) *Proc. Natl. Acad. Sci. USA* 91, 4806-4810.
4. Yamamoto, K. et al. (1994) *Mol. Cell Biol.* 14, 4342-4349.
5. Jacobson, N.G. et al. (1995) *J. Exp. Med.* 181, 1755-1762.
6. Bacon, C.M. et al. (1995) *Proc. Natl. Acad. Sci. USA* 92, 7307-7311.
7. Thierfelder, W.E. et al. (1996) *Nature* 382, 171-174.
8. Kaplan, M.H. et al. (1996) *Nature* 382, 174-177.
9. Visconti, R. et al. (2000) *Blood* 96, 1844-52.

### 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

### Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://cellsignal.com/trademarks) for more information.

### Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's

terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.