Revision 1

#52478 Store at +4C

# IRF-5 (E1N9G) Rabbit mAb (PE Conjugate)

Cell Signaling TECHNOLOGY®

**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

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

| Applications: | Reactivity: | Sensitivity: | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|
| FC-FP | H | Endogenous | Rabbit IgG | #Q13568 | 3663 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Flow 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

IRF-5 (E1N9G) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total IRF-5 protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu169 of human IRF-5 protein.

## Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated IRF-5 (E1N9G) Rabbit mAb #13496.

## Background

Interferon regulatory factors (IRFs) comprise a family of transcription factors that function within the Jak/Stat pathway to regulate interferon (IFN) and IFN-inducible gene expression in response to viral infection (1). IRFs play an important role in pathogen defense, autoimmunity, lymphocyte development, cell growth, and susceptibility to transformation. The IRF family includes nine members: IRF-1, IRF-2, IRF-9/ISGF3γ, IRF-3, IRF-4 (Pip/LSIRF/ICSAT), IRF-5, IRF-6, IRF-7, and IRF-8/ICSBP. All IRF proteins share homology in their amino-terminal DNA-binding domains. IRF family members regulate transcription through interactions with proteins that share similar DNA-binding motifs, such as IFN-stimulated response elements (ISRE), IFN consensus sequences (ICS), and IFN regulatory elements (IRF-E) (2).

IRF-5 is expressed in lymphoid tissues and peripheral blood lymphocytes and participates in the induction of type I interferon genes following viral infection (3). Activation of IRF-5 signaling is triggered by components of the toll-like receptor (TLR) pathway, including TLR7 and MyD88 (4,5). Research studies show that genetic variants of *IRF5* have been associated with disorders where the IFN pathway is abnormally activated, such as systemic lupus erythematosus (6,7).

## Background References

1. Taniguchi, T. et al. (2001) *Annu Rev Immunol* 19, 623-55.
2. Honda, K. and Taniguchi, T. (2006) *Nat Rev Immunol* 6, 644-58.
3. Barnes, B.J. et al. (2001) *J Biol Chem* 276, 23382-90.
4. Takaoka, A. et al. (2005) *Nature* 434, 243-9.
5. Schoenemeyer, A. et al. (2005) *J Biol Chem* 280, 17005-12.
6. Sigurdsson, S. et al. (2005) *Am J Hum Genet* 76, 528-37.
7. Graham, R.R. et al. (2006) *Nat Genet* 38, 550-5.

## 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



## Limited Uses

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