## IRAK1 (D51G7) Rabbit mAb (PE Conjugate)



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Source/Isotype: Entrez-Gene Id: Applications: Reactivity: Sensitivity: **UniProt ID:** FC-FP H M Mk Endogenous Rabbit IgG #P51617 3654 **Product Usage** Application Dilution Information Flow Cytometry (Fixed/Permeabilized) 1:50 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 **Storage** antibodies. Protect from light. Do not freeze. Specificity / Sensitivity IRAK1 (D51G7) Rabbit mAb (PE Conjugate) detects endogenous levels of total IRAK1 protein. Source / Purification Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxyl terminus of mouse IRAK1.

**Product 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 IRAK1 (D51G7) Rabbit mAb #4504.

Interleukin-1 (IL-1) receptor-associated kinase (IRAK) is a serine/threonine-specific kinase that can be **Background** coprecipitated in an IL-1-inducible manner with the IL-1 receptor (1). The mammalian family of IRAK

molecules contains four members (IRAK1, IRAK2, IRAK3/IRAK-M, and IRAK4). The binding of IL-1 to IL-1 receptor type I (IL-1RI) initiates the formation of a complex that includes IL-1RI, AcP, MyD88, and IRAKs (2). IRAK undergoes autophosphorylation shortly after IL-1 stimulation. The subsequent events involve IRAK dissociation from the IL-1RI complex, its ubiquitination, and its association with two membranebound proteins: TAB2 and TRAF6. The resulting IRAK-TRAF6-TAB2 complex is then released into the cytoplasm where it activates protein kinase cascades, including TAK1, IKKs, and the stress-activated

kinases (3).

**Background References** 1. Dinarello, C.A. (1996) Blood 87, 2095-147.

2. Takaesu, G. et al. (2001) Mol Cell Biol 21, 2475-84.

3. Janssens, S. and Beyaert, R. (2003) Mol Cell 11, 293-302.

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

**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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