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## IRAK1 (D51G7) Rabbit mAb

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

<b>Applications:</b> W, IP, FC-FP	<b>Reactivity:</b> H M Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 78-105	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P51617	<b>Entrez-Gene Id:</b> 3654
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### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Flow Cytometry (Fixed/Permeabilized)

#### Dilution

1:1000  
1:100  
1:400 - 1:1600

### 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 #48222.

### Specificity/Sensitivity

IRAK1 (D51G7) Rabbit mAb 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.

### Background

Interleukin-1 (IL-1) receptor-associated kinase (IRAK) is a serine/threonine-specific kinase that can be 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 membrane-bound 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

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

**W:** Western Blotting **IP:** Immunoprecipitation **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

### Cross-Reactivity Key

**H:** Human **M:** Mouse **Mk:** Monkey

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