Source/Isotype:

## IRAK1 (D51G7) Rabbit mAb (Biotinylated)



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**UniProt ID:** 

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

WB	H M Mk	Endogenous	78-105	Rabbit IgG	#P51617	3654	
Product Usage Information	Ap	plication		Dilution			
	We	stern Blotting			1:1000		
Storage		Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at –20°C. Do not aliquot the antibodies.					
Specificity / Sensitiv	ecificity / Sensitivity IRAK1 (D51G7) Rabbit mAb (Biotinylated				d) 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 carboxy terminus of mouse IRAK1 protein.					
Product Description	anti	This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated IRAK1 (D51G7) Rabbit mAb #4504.					
MM (I/Da)				70.105			

MW (kDa):

MW (kDa) 78-105

Sensitivity:

## **Background**

Applications:

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 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** 

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** 

WB: Western Blotting

**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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