

## IRAK-1 (Phospho Thr100) Rabbit pAb

CatalogNo: YP0753 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 77kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:20000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human IRAK1 around the phosphorylation site of Thr100. AA range:66-115

## Specificity

Phospho-IRAK-1 (T100) Polyclonal Antibody detects endogenous levels of IRAK-1 protein only when phosphorylated at T100. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): IItAW

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## Target Information

**Gene name** IRAK1

**Protein Name** Interleukin-1 receptor-associated kinase 1

Organism	Gene ID	UniProt ID
Human	<a href="#">3654</a> ;	<a href="#">P51617</a> ;
Mouse	<a href="#">16179</a> ;	<a href="#">Q62406</a> ;

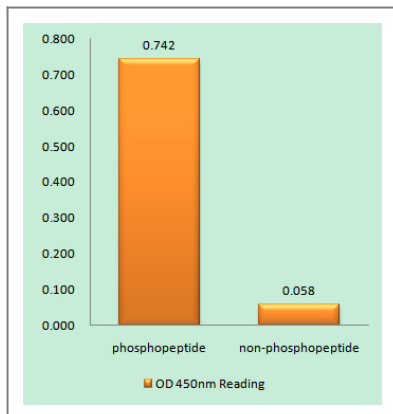
**Cellular Localization** Cytoplasm . Nucleus . Lipid droplet . Translocates to the nucleus when sumoylated. RSAD2/viperin recruits it to the lipid droplet (By similarity). .

**Tissue specificity** Isoform 1 and isoform 2 are ubiquitously expressed in all tissues examined, with isoform 1 being more strongly expressed than isoform 2.

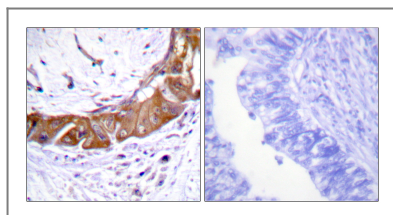
**Function** Catalytic activity: ATP + a protein = ADP + a phosphoprotein., cofactor: Magnesium., Function: Binds to the IL-1 type I receptor following IL-1 engagement, triggering intracellular signaling cascades leading to transcriptional up-regulation and mRNA stabilization. Isoform 1 binds rapidly but is then degraded allowing isoform 2 to mediate a slower, more sustained response to the cytokine. Isoform 2 is inactive suggesting that the kinase activity of this enzyme is not required for IL-1 signaling. Once phosphorylated, IRAK1 recruits the adapter protein PELI1., PTM: Autophosphorylated or is transphosphorylated by IRAK4 following recruitment to the IL-1RI. In the case of isoform 1, this is linked to ubiquitination and degradation., similarity: Belongs to the protein kinase superfamily., similarity: Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. Pelle subfamily., similarity: Contains 1 protein kinase domain., subunit: IL-1 stimulation leads to the formation of a signaling complex which dissociates from the IL-1 receptor following the binding of PELI1. Interacts with IL1RL1. Interacts with IRAK1BP1., tissue specificity: Isoform 1 and isoform 2 are ubiquitously expressed in all tissues examined, with isoform 1 being more strongly expressed than isoform 2.,

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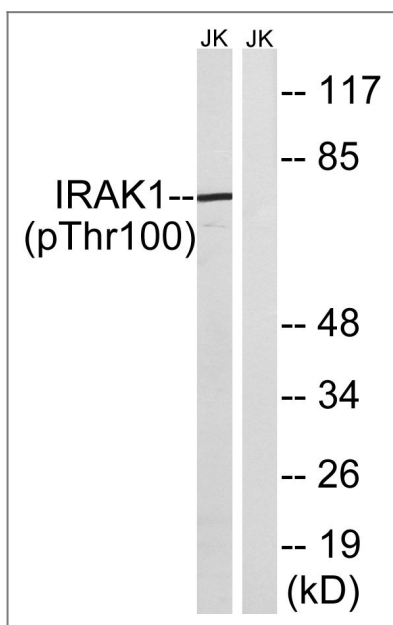
## Validation Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using IRAK1 (Phospho-Thr100) Antibody



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using IRAK1 (Phospho-Thr100) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from Jurkat cells treated with heat shock, using IRAK1 (Phospho-Thr100) Antibody. The lane on the right is blocked with the phospho peptide.

## Contact information

Orders: [order.cn@immunoway.com](mailto:order.cn@immunoway.com)  
 Support: [support.cn@immunoway.com](mailto:support.cn@immunoway.com)  
 Telephone: 400-8787-807(China)  
 Website: <http://www.immunoway.com.cn>  
 Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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