Applications

WB,IHC,IF,ELISA



IRAK-1 (Phospho Thr100) Rabbit pAb

CatalogNo: YP0753 Orthogonal Validated [9]

Key Features

Host Species Reactivity

 Rabbit · Human, Mouse, Rat

Isotype

MW 77kD (Observed) IgG

Recommended Dilution Ratios

WB 1:500-1:2000 IHC 1:100-1:300 **ELISA 1:20000** IF 1:50-200

Storage

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

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

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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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

Target Information

Gene name

IRAK1

Protein Name

Interleukin-1 receptor-associated kinase 1

Organism	Gene ID	UniProt ID
Human	<u>3654;</u>	<u>P51617;</u>
Mouse	<u>16179;</u>	<u>Q62406;</u>

Cellular Localization Cytoplasm . Nucleus . Lipid droplet . Translocates to the nucleus when sumoylated.

RSAD2/viperin recruits it to the lipid droplet (By similarity). .

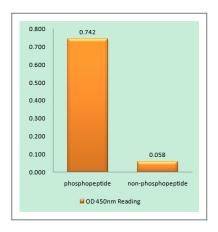
Tissue specificity Isoform 1 and isoform 2 are ubiquitously expressed in all tissues examined, with isoform 1 being more strongly expressed than isoform 2.

Function

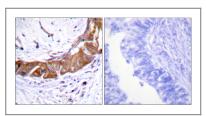
Catalytic activity:ATP + a protein = ADP + a

phosphoprotein.,cofactor:Magnesium.,Function:Binds to the IL-1 type I receptor following IL-1 engagement, triggering intracellular signaling cascades leading to transcriptional upregulation 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.,

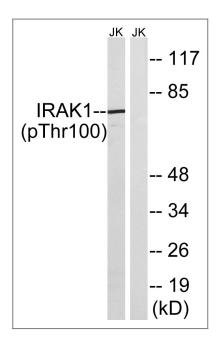
Validation Data



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

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Please scan the QR code to access additional product information: IRAK-1 (Phospho