

## IRAK-1 (phospho Thr100) Polyclonal Antibody

Catalog No: YP0753

Reactivity: Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: IRAK-1

**Fields:** >>MAPK signaling pathway;>>NF-kappa B signaling pathway;>>Toll-like

receptor signaling pathway;>>Neurotrophin signaling pathway;>>Alcoholic liver

disease;>>Pathogenic Escherichia coli infection;>>Salmonella

infection;>>Pertussis;>>Yersinia infection;>>Leishmaniasis;>>Chagas

disease;>>Toxoplasmosis;>>Tuberculosis;>>Hepatitis B;>>Measles;>>Herpes

simplex virus 1 infection;>>Epstein-Barr virus infection;>>Human

immunodeficiency virus 1 infection;>>Coronavirus disease - COVID-19;>>Lipid

and atherosclerosis

Gene Name: IRAK1

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

P51617

Q62406

Human Gene Id: 3654

**Human Swiss Prot** 

No:

Mouse Gene Id: 16179

**Mouse Swiss Prot** 

No:

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.

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

Source: Polyclonal, Rabbit,IgG



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

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

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

**Observed Band:** 77kD

Cell Pathway: Apoptosis\_Inhibition;Apoptosis\_Mitochondrial;Apoptosis\_Overview;Toll\_Like;N

eurotrophin;

Background: This gene encodes the interleukin-1 receptor-associated kinase 1, one of two

putative serine/threonine kinases that become associated with the interleukin-1

receptor (IL1R) upon stimulation. This gene is partially responsible for

IL1-induced upregulation of the transcription factor NF-kappa B. Alternatively spliced transcript variants encoding different isoforms have been found for this

gene. [provided by RefSeq, Jul 2008],

**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:

Subcellular Location:

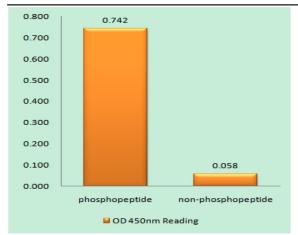
Cytoplasm . Nucleus . Lipid droplet . Translocates to the nucleus when

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

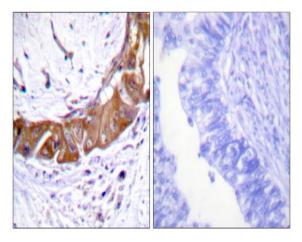
**Expression:** Isoform 1 and isoform 2 are ubiquitously expressed in all tissues examined, with

isoform 1 being more strongly expressed than isoform 2.

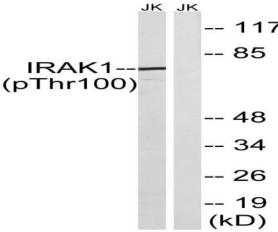
## **Products Images**



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.