

## IRAK1 Polyclonal Antibody

Catalog number: 10478-2-AP

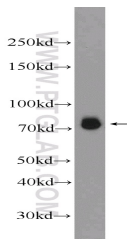
Size: 34 µg/150 µl

Source: Rabbit

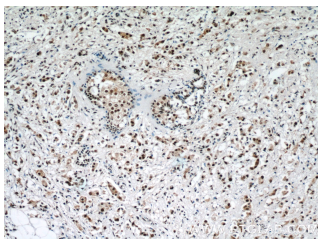
Isotype: IgG

Synonyms:

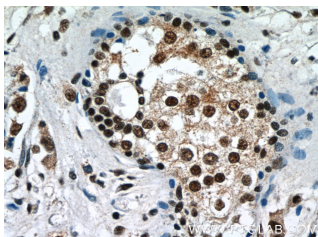
IRAK1; IRAK, IRAK 1, IRAK1,  
pelle



A549 cells were subjected to SDS PAGE followed by western blot with 10478-2-AP( IRAK1 Antibody) at dilution of 1:600



Immunohistochemistry of paraffin-embedded human breast cancer tissue slide using 10478-2-AP( IRAK1 Antibody) at dilution of 1:50 (under 10x lens)



Immunohistochemistry of paraffin-embedded human breast cancer tissue slide using 10478-2-AP( IRAK1 Antibody) at dilution of 1:50 (under 40x lens)

### Background

Interleukin-1 receptor-associated kinases (IRAKs) are a unique family of death domain containing protein kinases that play a key role in initiating innate immune response against foreign pathogens. They are involved in Toll-like receptor (TLR) and interleukin-1 receptor (IL-1R) signaling pathways. IRAK1 is the first member of this kinase family. Upon ligand binding to TLR/IL-1R, IRAK1 is recruited by MYD88 to the receptor-signaling complex, the association leads to IRAK1 phosphorylation by IRAK4 and subsequent autophosphorylation and kinase activation. Hyperphosphorylated IRAK1 then disengages from the receptor complex, and forms a cytosolic IRAK1-TRAF6 complex. TRAF6 then interacts with TAK and TAB, resulting in eventual activation of the NF-κB and MAPK pathways. Phosphorylated IRAK1 also undergoes ubiquitin-mediated degradation or sumoylation, which results in nuclear translocation and transcriptional activation of inflammatory target genes. (PMID: 17890055; 12620219)

### Applications

Tested applications:	ELISA, WB, IP, IHC, IF, FC
Cited applications:	WB
Species specificity:	Human, Mouse, Rat; other species not tested.
Cited species:	Human, mouse
Calculated IRAK1 MW:	68 kDa
Observed IRAK1 MW:	68-80 kDa
Positive WB detected in	A549 cells, HeLa cells, PC-13 cells
Positive IP detected in	HeLa cells
Positive IHC detected in	Human breast cancer tissue, human lung cancer tissue
Positive IF detected in	A549 cells
Positive FC detected in	HeLa cells
Recommended dilution:	WB: 1:200-1:2000 IP: 1:200-1:2000 IHC: 1:50-1:500 IF: 1:50-1:500 FC: N/A

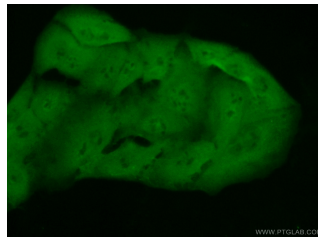
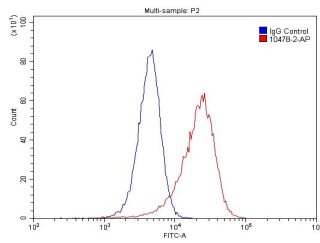
Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

### Immunogen information

Immunogen:	Ag0728
GenBank accession number:	BC014963
Gene ID (NCBI):	3654
Full name:	Interleukin-1 receptor-associated kinase 1

### Product information

Purification method:	Antigen affinity purification
Storage:	PBS with 0.1% sodium azide and 50% glycerol pH 7.3. Store at -20°C.



**1X10<sup>6</sup> HeLa cells were stained with .2ug IRAK1 antibody (10478-2-AP, red) and control antibody (blue). Fixed with 4% PFA blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500.**

**Immunofluorescent analysis of ( 10% Formaldehyde ) fixed A549 cells using 10478-2-AP ( IRAK1 Antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)**