

IRAK4 / IRAK-4 Antibody (aa38-54)
Rabbit Polyclonal Antibody
Catalog # ALS12091**Specification**

IRAK4 / IRAK-4 Antibody (aa38-54) - Product Information

Application	WB, IHC-P
Primary Accession	O9NWZ3
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A

IRAK4 / IRAK-4 Antibody (aa38-54) - Additional Information**Gene ID** 51135**Other Names**

Interleukin-1 receptor-associated kinase 4, IRAK-4, 2.7.11.1, Renal carcinoma antigen NY-REN-64, IRAK4

Target/Specificity

A mixture of synthetic peptides containing amino acids 38-54 and 120-136 of mouse IRAK-4.

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

IRAK4 / IRAK-4 Antibody (aa38-54) is for research use only and not for use in diagnostic or therapeutic procedures.

IRAK4 / IRAK-4 Antibody (aa38-54) - Protein Information**Name** IRAK4**Function**

Serine/threonine-protein kinase that plays a critical role in initiating innate immune response against foreign pathogens. Involved in Toll-like receptor (TLR) and IL-1R signaling pathways (PubMed:17878374). Is rapidly recruited by MYD88 to the receptor- signaling complex upon TLR activation to form the Myddosome together with IRAK2. Phosphorylates initially IRAK1, thus stimulating the kinase activity and intensive autophosphorylation of IRAK1. Phosphorylates E3 ubiquitin ligases Pellino proteins (PELI1, PELI2 and PELI3) to promote pellino-mediated polyubiquitination of IRAK1. Then, the ubiquitin- binding domain of IKBKG/NEMO binds to polyubiquitinated IRAK1 bringing together the IRAK1-MAP3K7/TAK1-TRAF6 complex and the NEMO-IKKA-IKKB complex. In turn, MAP3K7/TAK1 activates IKKs (CHUK/IKKA and IKBKB/IKKB) leading to NF-kappa-B nuclear translocation and

activation. Alternatively, phosphorylates TIRAP to promote its ubiquitination and subsequent degradation. Phosphorylates NCF1 and regulates NADPH oxidase activation after LPS stimulation suggesting a similar mechanism during microbial infections.

Cellular Location

Cytoplasm.

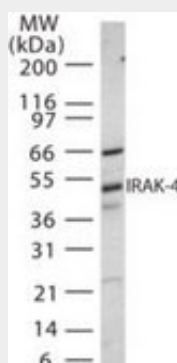
Volume

50 µl

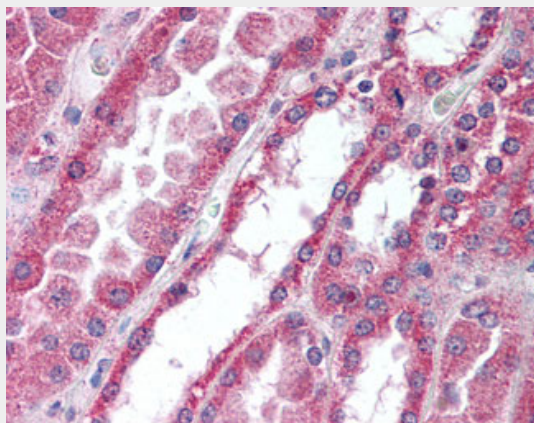
IRAK4 / IRAK-4 Antibody (aa38-54) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IRAK4 / IRAK-4 Antibody (aa38-54) - Images

Western blot of IRAK-4 in 30 ugs of NIH 3T3 cell lysate using antibody at 1:500 dilution.



Anti-IRAK4 antibody IHC of human kidney.

IRAK4 / IRAK-4 Antibody (aa38-54) - Background

Serine/threonine-protein kinase that plays a critical role in initiating innate immune response against foreign pathogens. Involved in Toll-like receptor (TLR) and IL-1R signaling pathways. Is rapidly recruited by MYD88 to the receptor- signaling complex upon TLR activation to form the Myddosome together with IRAK2. Phosphorylates initially IRAK1, thus stimulating the kinase activity and intensive autophosphorylation of IRAK1. Phosphorylates E3 ubiquitin ligases Pellino proteins (PELI1, PELI2 and PELI3) to promote pellino-mediated polyubiquitination of IRAK1. Then, the ubiquitin-binding domain of IKBKG/NEMO binds to polyubiquitinated IRAK1 bringing together the IRAK1-MAP3K7/TAK1-TRAF6 complex and the NEMO-IKKA-IKKB complex. In turn, MAP3K7/TAK1 activates IKKs (CHUK/IKKA and IKBKB/IKKB) leading to NF-kappa-B nuclear translocation and activation. Alternatively, phosphorylates TIRAP to promote its ubiquitination and subsequent degradation. Phosphorylates NCF1 and regulates NADPH oxidase activation after LPS stimulation suggesting a similar mechanism during microbial infections.

IRAK4 / IRAK-4 Antibody (aa38-54) - References

Li S.,et al.Proc. Natl. Acad. Sci. U.S.A. 99:5567-5572(2002).
Scanlan M.J.,et al.Int. J. Cancer 83:456-464(1999).
Chuang T.H.,et al.Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Scherer S.E.,et al.Nature 440:346-351(2006).