

**IRAK-4 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10428**

**Specification**

**IRAK-4 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9NWZ3</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>51530</b>

**IRAK-4 Antibody - Additional Information**

**Gene ID 51135**

Application & Usage	<b>Western blotting (2-4 µg/ml). However, the optimal concentrations should be determined individually. The antibody recognizes 50 kDa human IRAK-4. Reactivity of the antibody to other species has not been tested.</b>
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**Other Names**

IRAK-4 , IRAK4 , REN64 , NY-REN-64 , LOC51135, IPD1

**Target/Specificity**

IRAK-4

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

**IRAK-4 Antibody - Background**

The IRAK family members play an important role in IL-1R/TLR mediated inflammatory responses and in innate immunity. IRAK-4 is a novel member in the IRAK family. Over expression of IRAK-4 activates NFkB and MAPK pathways. Animas and human lacking IRAK-4 are impaired in their responses to viral and bacterial challenges.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

IRAK-4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**IRAK-4 Antibody - 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: <http://www.uniprot.org/citations/17878374> target="\_blank">17878374</a>). 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.

## **IRAK-4 Antibody - 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](#)