

Anti-IRAK4 Antibody

Catalog # ABO11245

Product Information

Application	WB
Primary Accession	Q9NWZ3
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Interleukin-1 receptor-associated kinase 4(IRAK4) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	51530
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm .
Source	Eukaryota
Protein Name	Interleukin-1 receptor-associated kinase 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human IRAK4(45-59aa DDRYNQFHIRRFEAL), identical to the related rat and mouse sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20° C for one year. After reconstitution, at 4° C for one month. It can also be aliquotted and stored frozen at -20° C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.

Pelle subfamily.

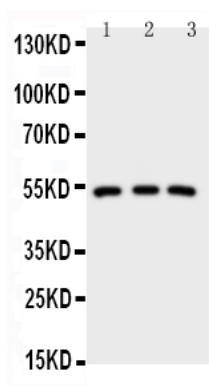
Protein Information

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.

Background

IRAK-4(interleukin-1 receptor-associated kinase 4), also called REN64, in the IRAK family, is a protein kinase involved in signaling innate immune responses from Toll-like receptors. It also supports signaling from T-cell receptors. Scott(2002) mapped the REN64/IRAK4 gene to chromosome 12 based on similarity between the REN64 sequence(GenBank AF155118) and a chromosome 12 clone(GenBank AC093012). Functional analysis by Li et al.(2002) determined that IRAK4, like IRAK1 and Pelle, has auto- and cross-phosphorylation kinase activity. Precipitation and binding analyses showed weak interaction between IRAK4 and IRAK1, but IRAK4 did not interact with other IRAK family members. Overexpressed IRAK4 interacted with MYD88 and TRAF6 and activated mitogen-activated protein kinase(MAPK) and nuclear factor kappa-B(NFKB) pathways.

Images



Anti-IRAK4 antibody, ABO11245, Western blotting
Lane 1: HELA Cell Lysate
Lane 2: U87 Cell Lysate
Lane 3: MCF-7 Cell Lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.