ARG54631
anti-IRAK4 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes IRAK4
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Specificity	This antibody specifically recognizeshuman IRAK-4 (IL-1 ReceptorAssociated Kinase-4). This antibodydoes not cross-react with other IRAKs.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	IRAK4
Species	Human
Immunogen	A synthetic peptidecorresponding to amino acids at thecarboxy terminus of human IRAK-4.
Conjugation	Un-conjugated
Alternate Names	REN64; Renal carcinoma antigen NY-REN-64; NY-REN-64; Interleukin-1 receptor-associated kinase 4; EC 2.7.11.1; IRAK-4; IPD1

Application Instructions

Application table

Application	Dilution
ICC/IF	Assay-dependent
WB	Assay-dependent

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Positive Control: HeLa and K562

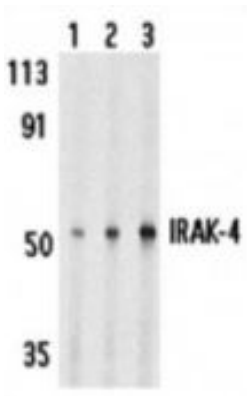
Properties

Form	Liquid
Purification	purified by Immunoaffinity chromatography.
Buffer	PBS (pH 7.4) and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 51135 Human Swiss-port # Q9NWZ3 Human
Gene Symbol	IRAK4
Gene Full Name	interleukin-1 receptor-associated kinase 4
Background	IRAK-4 activates the NF-□B and MAPKpathways and plays a role in IL-1Rmediated inflammatory responses andinnate immunity. IRAK-4-deficientanimals are resistant to challenge withLPS and are impaired in their responsesto viral and bacterial challenges.
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. [UniProt]
Highlight	Related products: IRAK4 antibodies; Anti-Rabbit IgG secondary antibodies; Related poster download: The NF-kappa B Pathways.pdf Toll-like Receptor.pdf
Research Area	Cell Biology and Cellular Response antibody; Immune System antibody; Signaling Transduction antibody
Calculated Mw	52 kDa
PTM	Phosphorylated.

Images

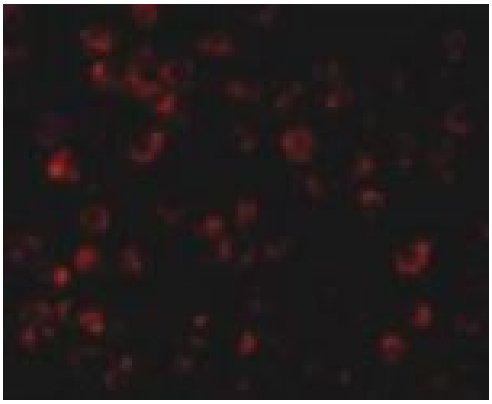


ARG54631 anti-IRAK4 antibody WB image

Western Blot: IRAK-4 in HeLa cell lysate stained with ARG54631 anti-IRAK4 antibody at 1, 2, and 3µg/ml dilution.

ARG54631 anti-IRAK4 antibody ICC/IF image

Immunofluorescence: K562 stained with ARG54631 anti-IRAK4 antibody at 10 µg/ml dilution.



ARG54631 anti-IRAK4 antibody ICC/IF image

Immunofluorescence: K562 stained with ARG54631 anti-IRAK4 antibody at 10 µg/ml dilution.