Datasheet for ABIN6241064

anti-IRAK1 antibody (pSer376)

4 Images

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Overview

Quantity:	200 µL
Target:	IRAK1
Binding Specificity:	AA 348-381, pSer376
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This IRAK1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (IF)

Product Details

Immunogen:	This Phospho-IRAK1(S376) antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 348-381 amino acids from human IRAK1.
Clone:	RB56575
Isotype:	Ig Fraction
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	IRAK1
Alternative Name:	IRAK1 (IRAK1 Products)

Target Details

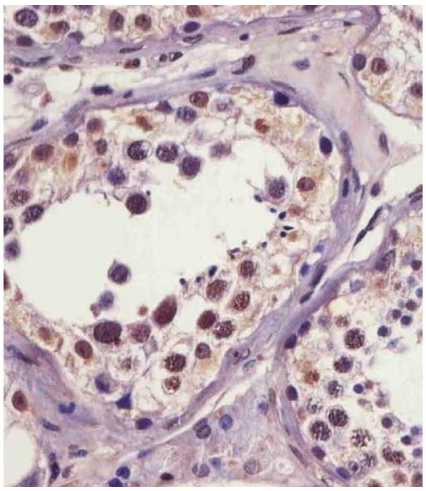
Background:	Serine/threonine-protein kinase that plays a critical role in initiating innate immune response against foreign pathogens. Involved in Toll-like receptor (TLR) and IL-1R signaling pathways. Is rapidly recruited by MYD88 to the receptor- signaling complex upon TLR activation. Association with MYD88 leads to IRAK1 phosphorylation by IRAK4 and subsequent autophosphorylation and kinase activation. 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 the interferon regulatory factor 7 (IRF7) to induce its activation and translocation to the nucleus, resulting in transcriptional activation of type I IFN genes, which drive the cell in an antiviral state. When sumoylated, translocates to the nucleus and phosphorylates STAT3.
Molecular Weight:	76537
UniProt:	P51617
Pathways:	NF-kappaB Signaling, TLR Signaling, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Toll-Like Receptors Cascades

Application Details

Application Notes:	IF: 1:25. WB: 1:1000. IHC-P: 1:25. IHC-P: 1:25
Restrictions:	For Research Use only

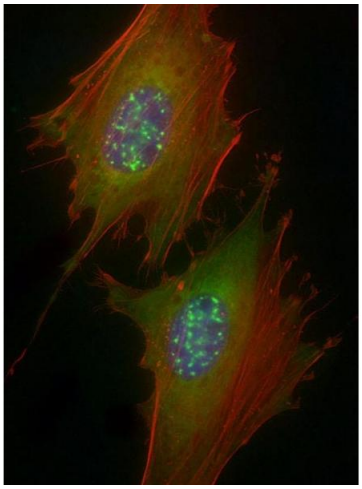
Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Expiry Date:	6 months



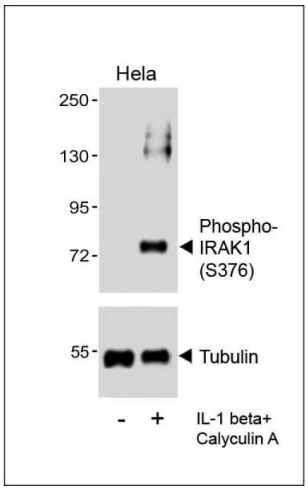
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. (ABIN6241064 and ABIN6578961) staining IRAK1 in human testis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3 % BSA for 0. 5 hour at room temperature, antigen retrieval was by heat mediation with a citrate buffer (pH 6). Samples were incubated with primary antibody (1/25) for 1 hours at 37 °C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Immunofluorescence

Image 2. Immunofluorescent analysis of 4 % paraformaldehyde-fixed, 0.1 % Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling IRAK1 with (ABIN6241064 and ABIN6578961) at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and nuclear speckles staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red). The nuclear counter stain is DI (blue).



Western Blotting

Image 3. Western blot analysis of lysates from Hela cell line, untreated or treated with IL-1 beta(20 ng/mL) + Calyculin A(100nM), using (ABIN6241064 and ABIN6578961) (upper) or Tubulin (lower).

Please check the product details page for more images. Overall 4 images are available for ABIN6241064.