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IRAK1 / IRAK Antibody (clone 3A9)
Mouse Monoclonal Antibody
Catalog # ALS13346

Specification

IRAK1 / IRAK Antibody (clone 3A9) - Product Information

Application	**WB, IHC-P, IF, E, IP, RNAi**
Primary Accession	P51617
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**77kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **IF~~1:50~200** **E~~N/A** **IP~~N/A** **RNAi~~N/A**

IRAK1 / IRAK Antibody (clone 3A9) - Additional Information

Gene ID 3654

Other Names
Interleukin-1 receptor-associated kinase 1, IRAK-1, 2.7.11.1, IRAK1, IRAK

Reconstitution & Storage
Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions
IRAK1 / IRAK Antibody (clone 3A9) is for research use only and not for use in diagnostic or therapeutic procedures.

IRAK1 / IRAK Antibody (clone 3A9) - Protein Information

Name IRAK1 (HGNC:6112)

Synonyms IRAK

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. 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.

Cellular Location
Cytoplasm. Nucleus. Lipid droplet Note=Translocates to the nucleus when sumoylated. RSAD2/viperin recruits it to the lipid droplet (By similarity).

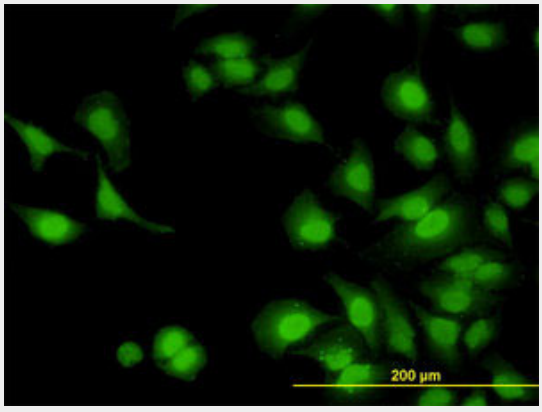
Tissue Location
Isoform 1 and isoform 2 are ubiquitously expressed in all tissues examined, with isoform 1 being more strongly expressed than isoform 2.

IRAK1 / IRAK Antibody (clone 3A9) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IRAK1 / IRAK Antibody (clone 3A9) - Images



Immunofluorescence of monoclonal antibody to IRAK1 on HeLa cell (antibody concentration 10 ug/ml).

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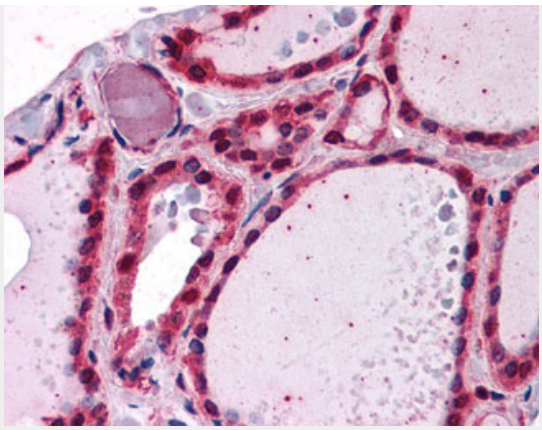

Anti-IRAK1 / IRAK antibody IHC of human thyroid.

IRAK1 / IRAK Antibody (clone 3A9) - Background

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IRAK1 / IRAK Antibody (clone 3A9) - References

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