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Datasheet for 200-401-951

IRAK Antibody

Overview

Description:	Anti-IRAK (RABBIT) Antibody - 200-401-951
Item No.:	200-401-951
Size:	100 µg
Applications:	ELISA, IHC, IP, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	IRAK (Interleukin-1 receptor-associated kinase 1). Nuclear factor kappa B (NF-kB) is a ubiquitous transcription factor and an essential mediator of gene expression during activation of immune and inflammatory responses. NF-kB mediates the expression of a great variety of genes in response to extracellular stimuli including IL-1, TNFa and LPS. A serine/ threonine protein kinase associated with IL-1 receptor (IRAK) and its homologue mouse pelle-like protein kinase (mPLK) were identified recently (1,2). IRAK is associated with the IL-1 receptor subunits IL-1RI and IL-1RAcP after IL-1 binding and serves as a signaling molecule to mediate IL-1 response (3). IRAK mediates a signaling cascade leading to NF-kB activation by members in IL-1 family including IL-1 and a novel cytokine IL-18 (also termed IGIF) (1,4).
Synonyms:	Il1rak antibody, Interleukin 1 receptor associated kinase 1 antibody, Interleukin 1 receptor associated kinase 2 antibody, IRAK1 antibody, IRAK2 antibody, mPLK antibody, Pelle antibody, Plpk antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	IRAK1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	This IgG fraction antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the carboxy terminus of human IRAK protein.
Purity/Specificity:	This IgG fraction antibody is directed against human IRAK protein. The product is affinity chromatography purified via peptide column. A BLAST analysis was used to suggest cross reactivity with IRAK protein from human, mouse and rat based on 100% homology with the immunizing sequence. No cross reactivity occurs against IRAK-2. Reactivity against homologues from other sources is not known.
Relevant Links:	• UniProtKB - P51617 • NCBI - 68800243 • GeneID - 3654

Application Details

Tested Applications:	ELISA, IHC, IP, WB
Application Note:	This IgG fraction antibody has been tested for use in ELISA, immunoprecipitation, immunohistochemistry, and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 80 kDa in size corresponding to IRAK protein by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:20,000
IHC:	1:100 - 1:500
IP:	2-4 ug per sample
WB:	1:500 - 1:2,000

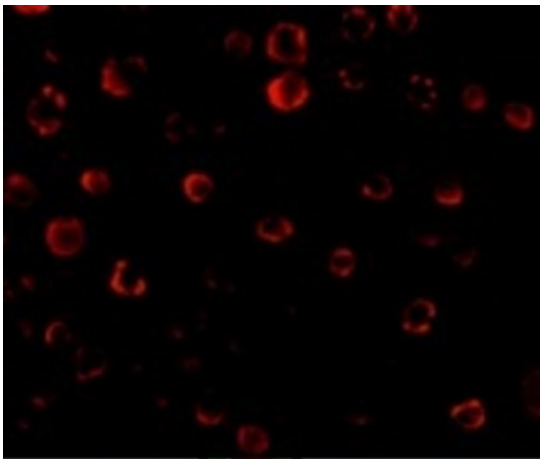
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

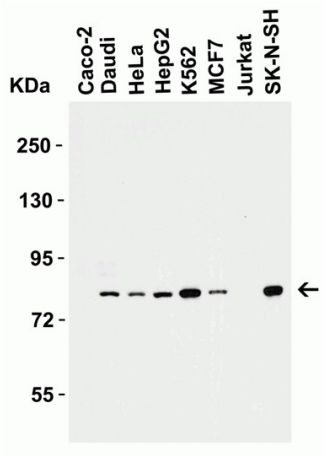
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

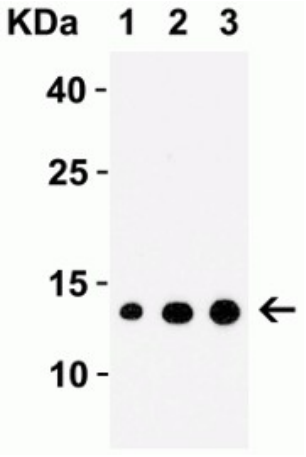
Images



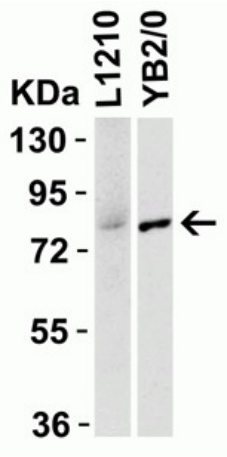
Immunofluorescence Microscopy
Immunofluorescence Validation of IRAK in Human HeLa Cells. Immunofluorescent analysis of 4% paraformaldehyde-fixed HeLa Cells labeling IRAK at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).



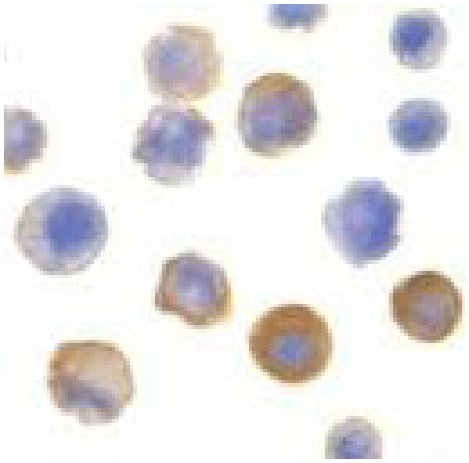
Western Blot
Western Blot Validation. Loading: 15 µg of lysates per lane in Human Cell Lines. Antibodies: IRAK (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



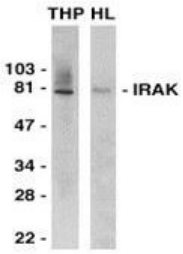
Western Blot
Western Blot Validation. Loading: 30 ng of human IRAK recombinant protein per lane. Antibodies: IRAK (1: 1 µg/mL, 2: 2 µg/mL, and 3: 4 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot
Western Blot using IRAK.
Loading: 15 µg of L1210 and YB2/0 lysates per lane.
Antibodies: IRAK (1 µg/mL,), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunohistochemistry
Immunohistochemistry using Rockland's IgG fraction of anti-IRAK antibody shows staining of IRAK in HeLa cells. The cells were fixed with paraformaldehyde and reacted with the primary antibody diluted to 1:100.



Western Blot
Western blot using Rockland's IgG fraction of anti-IRAK antibody shows detection of IRAK in THP whole cell lysate (1) or HeLa whole cell lysate (2). The membrane was probed with the primary antibody diluted to 1:2,000.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.