

## Product datasheet

# Anti-IRAK-1 antibody ab238

★★★★★ 6 Abreviews 22 References 4 Images

### Overview

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<b>Product name</b>	Anti-IRAK-1 antibody
<b>Description</b>	Rabbit polyclonal to IRAK-1
<b>Host species</b>	Rabbit
<b>Specificity</b>	At least four isoforms of IRAK are known to exist; this antibody will detect all four isoforms. IRAK antibody is predicted to not cross-react with other members of the IRAK protein family.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human IRAK-1 aa 700-712 (C terminal). (Peptide available as <a href="#">ab6230</a> )
<b>Positive control</b>	WB: L1210 and YB2/0 cell lysates (Human, Mouse & Rat). ICC: HeLa and murine RAW 264.7 cells (Human).
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.02% Sodium azide Constituent: PBS
<b>Purity</b>	Affinity purified
<b>Purification notes</b>	Affinity chromatography purified via peptide column.
<b>Clonality</b>	Polyclonal

Isotype

IgG

## Applications

### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab238 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ (3)	1/1000. Predicted molecular weight: 77 kDa. (THP-1 or HeLa whole cell) from non-activated cells.
ICC		Use a concentration of 10 µg/ml.

## Target

### Function

Binds to the IL-1 type I receptor following IL-1 engagement, triggering intracellular signaling cascades leading to transcriptional up-regulation and mRNA stabilization. Isoform 1 binds rapidly but is then degraded allowing isoform 2 to mediate a slower, more sustained response to the cytokine. Isoform 2 is inactive suggesting that the kinase activity of this enzyme is not required for IL-1 signaling. Once phosphorylated, IRAK1 recruits the adapter protein PELI1.

### Tissue specificity

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

### Sequence similarities

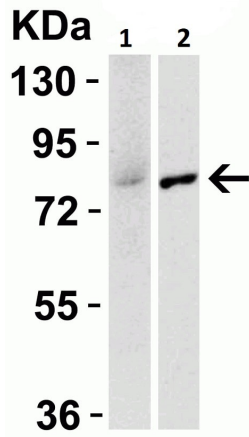
Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. Pelle subfamily. Contains 1 protein kinase domain.

### Post-translational modifications

Autophosphorylated or is transphosphorylated by IRAK4 following recruitment to the IL-1RI. In the case of isoform 1, this is linked to ubiquitination and degradation.

Polyubiquitinated; after cell stimulation with IL-1-beta. Polyubiquitination occurs with polyubiquitin chains linked through 'Lys-63'.

## Images



Western blot - Anti-IRAK-1 antibody (ab238)

**All lanes :** Anti-IRAK-1 antibody (ab238) at 1 µg/ml

**Lane 1 :** L1210 cell lysate

**Lane 2 :** YB2/0 cell lysate

Lysates/proteins at 15 µg per lane.

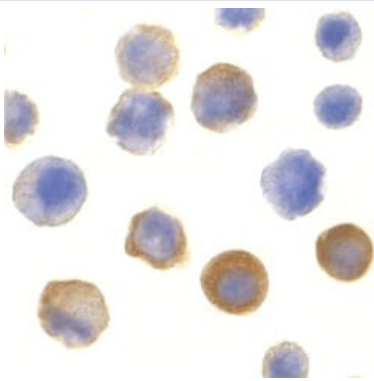
**Secondary**

**All lanes :** Goat anti-rabbit IgG HRP conjugate at 1/10000 dilution

**Predicted band size:** 77 kDa

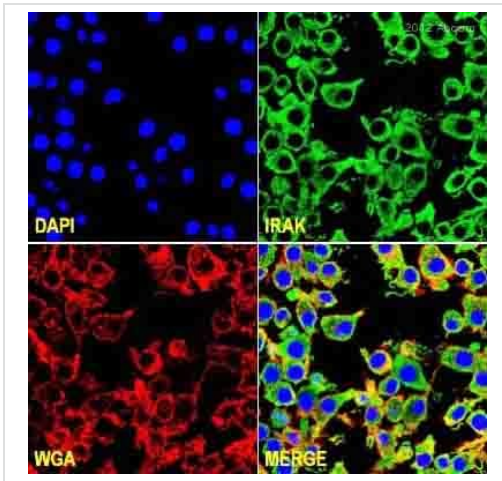
**Observed band size:** 77 kDa

1h incubation at RT in 5% NFDN/TBST.



Immunocytochemistry - Anti-IRAK-1 antibody (ab238)

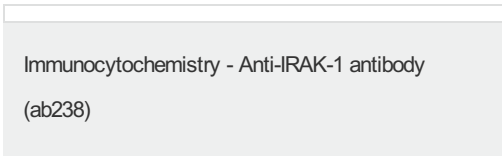
ab238 at 10µg/ml staining HeLa cells by ICC.



Immunocytochemistry - Anti-IRAK-1 antibody  
(ab238)

Image courtesy of Dr Mahesh Shivananjappa by Abreview.

ab238 staining IRAK-1 in murine RAW 264.7 cells by Immunocytochemistry. Cells were fixed in paraformaldehyde, permeabilized using 0.1% Triton-X100 in 2% BSA for 15 minutes, blocked with 2% BSA for 1 hour at 22°C and then incubated with ab238 at a 1/150 dilution for 16 hours at 4°C. The secondary used was an Alexa-Fluor 488 conjugated chicken anti-rabbit IgG (H+L) used at a 1/1000 dilution.



Immunocytochemistry - Anti-IRAK-1 antibody  
(ab238)

ICC of IRAK-1 in HeLa cells using ab238 at 20 ug/ml.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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