abcam

# ab251120

# Anti-IRAK2 antibody [EPR16530] - BSA and Azide free

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Carrier free** | Yes |
| **Clone number** | EPR16530 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 1.002 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IP

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information IRAK2

| | |
|---|---|
| **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. |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze |

## Notes

ab251120 is the carrier-free version of ab192249.

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**What are the advantages of a recombinant monoclonal antibody?**
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

**Conjugation ready**
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

**Compatibility**
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | IRAK2 also known as Interleukin-1 Receptor-Associated Kinase 2 plays a central role in the immune response. This protein has a molecular mass of approximately 68 kDa. It is broadly expressed in various tissues particularly in those related to the immune system including the spleen thymus and peripheral blood leukocytes. IRAK2 is a part of the IRAK family which includes other kinases like IRAK1 IRAK3 and IRAK4 sharing structural similarities. |
| **Biological function summary** | The IRAK2 protein is critical for transducing signals from interleukin-1 receptors (IL-1R) and Toll-like receptors (TLR) as part of the innate immune response. It does not work alone but as part of the Myddosome complex. This complex formation is essential for signal propagation leading to the activation of nuclear factor kappa-light-chain-enhancer of activated B cells (NF-kB) and mitogen-activated protein kinases (MAPKs). Activation of these pathways initiates inflammatory and immune processes enabling the body to respond to pathogens. |
| **Pathways** | IRAK2 integrates into the Toll-like receptor signaling pathway acting as a link between upstream receptor activation and downstream transcription factors. It has strong interactions with other key immune components like MyD88 and TRAF6 within these pathways. Through these links IRAK2 contributes to the orchestration of a coordinated immune defense facilitating the body's capacity to manage microbial infections while maintaining regulatory checks to prevent excessive inflammation. |

| | |
|---|---|
| **Associated diseases and disorders** | Defects or dysregulation in IRAK2 function can lead to immune-related diseases. For instance aberrant IRAK2 activity associates with rheumatoid arthritis where it drives inflammatory processes contributing to joint damage. Moreover its involvement in the immune signaling network makes it relevant in sepsis a condition resulting from an overwhelming immune response to infection. In these disorders IRAK2 works in conjunction with other proteins such as IRAK1 and TRAF6 influencing disease progression and symptom manifestation. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

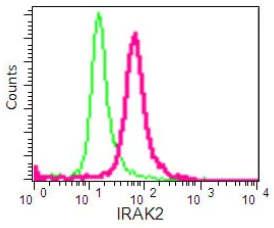
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

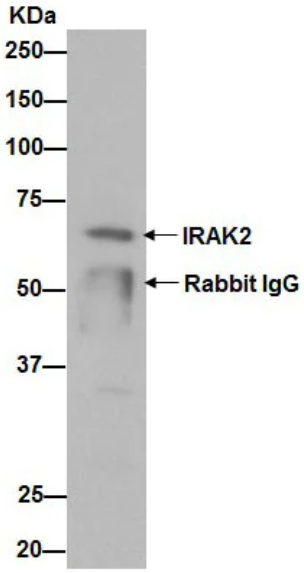
## 4 product images




## Flow Cytometry (Intracellular) - Anti-IRAK2 antibody [EPR16530] - BSA and Azide free (ab251120)

IRAK2 Flow Cytometry (Intracellular) staining using rabbit Anti-IRAK2 antibody

This data was developed using ab192249, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed MOLT4 cells labeling IRAK2 with ab192249 at 1/220 dilution (pink), compared to a Rabbit monoclonal IgG isotype control (green), followed by Goat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.




## Immunoprecipitation - Anti-IRAK2 antibody [EPR16530] - BSA and Azide free (ab251120)

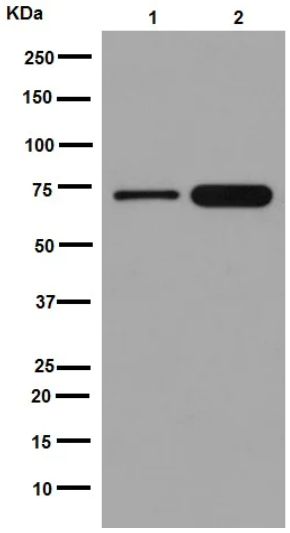
This data was developed using ab192249, the same antibody clone in a different buffer formulation.
Western blot analysis of IRAK2 in MOLT4 cell lysates immunoprecipitated using ab192249 at 1/60 dilution.

Secondary antibody: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution.

Blocking/Dilution buffer: 5% NFDM /TBST.

All lanes:
Immunoprecipitation - Anti-IRAK2 antibody [EPR16530] (ab192249)

Predicted band size: 69 kDa




## Western blot - Anti-IRAK2 antibody [EPR16530] - BSA and Azide free (ab251120)

IRAK2 Western blot staining using rabbit Anti-IRAK2 antibody

This data was developed using ab192249, the same antibody clone in a different buffer formulation.
**Blocking and dilution buffer:** 5% NFDM/TBST.

All lanes:
Western blot - Anti-IRAK2 antibody [EPR16530] (ab192249) at 1/1000 dilution

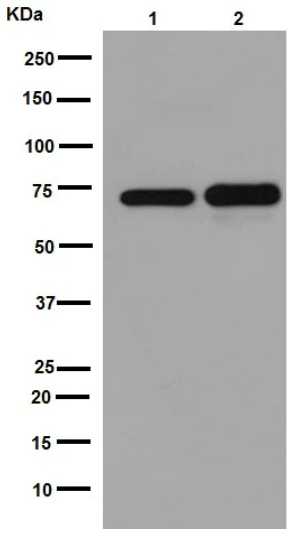
Lane 1:
THP1 cell lysate at 20 µg

Lane 2:
HeLa cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 69 kDa




# Western blot - Anti-IRAK2 antibody [EPR16530] - BSA and Azide free (ab251120)

IRAK2 Western blot staining using rabbit Anti-IRAK2 antibody

This data was developed using ab192249, the same antibody clone in a different buffer formulation.
**Blocking and dilution buffer:** 5% NFDM/TBST.

All lanes:
Western blot - Anti-IRAK2 antibody [EPR16530] (ab192249) at 1/10000 dilution

Lane 1:
K562 cell lysate at 20 µg

Lane 2:
MOLT-4 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 69 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.