abcam

ab248858

# Anti-Lamin B2 antibody [EPR9700(B)] - 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** | EPR9700(B) |
| **Purification technique** | Affinity purification |
| **Concentration** | 1.018 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IP

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | - |

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

## WB

### Tested

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

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

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

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

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information LMNB2

**Function**

Lamins are intermediate filament proteins that assemble into a filamentous meshwork, and which constitute the major components of the nuclear lamina, a fibrous layer on the nucleoplasmic side of the inner nuclear membrane (PubMed:33033404). Lamins provide a framework for the nuclear envelope, bridging the nuclear envelope and chromatin, thereby playing an important role in nuclear assembly, chromatin organization, nuclear membrane and telomere dynamics (PubMed:33033404). The structural integrity of the lamina is strictly controlled by the cell cycle, as seen by the disintegration and formation of the nuclear envelope in prophase and telophase, respectively (PubMed:33033404).

## 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

ab248858 is the carrier-free version of ab138516.

**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** | Lamin B2 also referred to as 'ln43' or 'lmnB2' is a lamin molecule with a molecular weight of approximately 66 kDa. It is an important component of the nuclear lamina an essential structure that provides mechanical support to the nuclear envelope. Lamin B2 is expressed in most cell types and is particularly abundant in cells with high proliferative capacity such as those in the fetal brain and liver. The protein is encoded by the LMNB2 gene and functions as an integral part of the nuclear envelope's architecture by interacting with other nuclear proteins. |
| **Biological function summary** | Lamin B2 plays a critical role in maintaining nuclear stability and chromatin organization. It is a part of a larger complex that includes Lamin B and other nuclear matrix proteins. This structural matrix is important for chromosomal segregation during cell division ensuring that the genetic material is evenly distributed between daughter cells. Lamin B2 also facilitates processes such as DNA replication and repair by serving as a scaffold for anchoring various molecular components within the nucleus. |
| **Pathways** | Lamin B2 is implicated in the regulation of the mitotic spindle formation during cell division which is a part of the cell cycle pathway. It interacts with proteins such as Lamin A and other nucleoporins contributing to the proper formation of nuclear pore complexes. Furthermore it plays a role in the pathway of apoptosis by modulating the release of factors from the nucleus that trigger cell death mechanisms. These interactions emphasize its importance in maintaining cellular function and integrity. |
| **Associated diseases and disorders** | Alterations in Lamin B2 expression or function have been linked to certain types of cancer such as glioblastoma as well as to laminopathies. Laminopathies are a group of disorders caused by mutations in lamin proteins leading to defects in nuclear structure and function. Besides aberrant Lamin B2 is associated with neurological disorders through its interactions with other nuclear envelope protein |

components like Lamin A/C. These connections highlight the importance of Lamin B2 in both physiological processes and pathologies.

## 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**

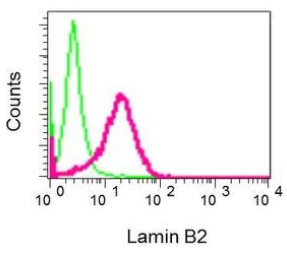
We do not recommend this combination. It is not covered by our product promise.

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.

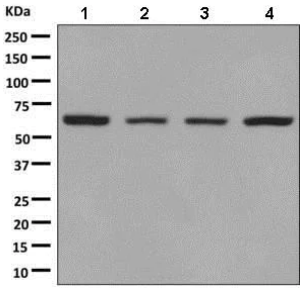
## 2 product images




### Flow Cytometry (Intracellular) - Anti-Lamin B2 antibody [EPR9700(B)] - BSA and Azide free (ab248858)

Lamin B2 Flow Cytometry (Intracellular) staining using rabbit Anti-Lamin B2 antibody

This data was developed using ab138516, the same antibody clone in a different buffer formulation.
Intracellular flow cytometrical analysis of permeabilized HeLa cells with ab138516 at a dilution of 1/10 (red) or a rabbit IgG negative (green).




# Western blot - Anti-Lamin B2 antibody [EPR9700(B)] - BSA and Azide free (ab248858)

This data was developed using ab138516, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Lamin B2 antibody [EPR9700(B)] (ab138516) at 1/1000 dilution

Lane 1:
HepG2 cell lysate at 10 µg

Lane 2:
Jurkat cell lysate at 10 µg

Lane 3:
HeLa cell lysate at 10 µg

Lane 4:
Raji cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 68 kDa

Observed band size: 68 kDa

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