abcam

# ab320180

# Alexa Fluor® 488 Anti-ADRM1/ARM-1 antibody [EPR11449(B)]

Recombinant | RabMAb

## Key facts

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|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Conjugation** | Alexa Fluor® 488 |
| **Excitation/Emission** | Ex: 495nm, Em: 519nm |
| **Storage buffer** | pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR11449(B) |
| **Specificity** | The mouse and rat recommendation (on parent abid) is based on the WB results. We do not guarantee IHC-P for mouse and rat. |

## Reactivity data

## Antibody Labelling

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |

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

## Target Binding Affinity

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Flow Cyt

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## ICC/IF

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Target data

See full target information ADRM1

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|---|---|
| **Function** | Component of the 26S proteasome, a multiprotein complex involved in the ATP-dependent degradation of ubiquitinated proteins (PubMed:16815440, PubMed:16906146, PubMed:16990800, PubMed:17139257, PubMed:18497817, PubMed:24752541, PubMed:25702870, PubMed:25702872). This complex plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins, which could impair cellular functions, and by removing proteins whose functions are no longer required (PubMed:16815440, PubMed:16906146, PubMed:16990800, PubMed:17139257, PubMed:18497817, PubMed:24752541, PubMed:25702870, PubMed:25702872). Therefore, the proteasome participates in numerous cellular processes, including cell cycle progression, apoptosis, or DNA damage repair (PubMed:16815440, PubMed:16906146, PubMed:16990800, PubMed:17139257, PubMed:18497817, PubMed:24752541, PubMed:25702870, PubMed:25702872). Within the complex, functions as a proteasomal ubiquitin receptor (PubMed:18497817). Engages and activates 19S-associated deubiquitinases UCHL5 and PSMD14 during protein degradation (PubMed:16906146, PubMed:16990800, PubMed:17139257, PubMed:24752541). UCHL5 reversibly associate with the 19S regulatory particle whereas PSMD14 is an intrinsic subunit of the proteasome lid subcomplex (PubMed:16906146, PubMed:16990800, PubMed:17139257, PubMed:24752541). |

## Storage

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|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle, Store in the dark |

## Notes

**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.

**How are conjugated primary antibodies validated?**
This conjugated primary antibody is released using a quantitative quality control method that evaluates binding affinity post-conjugation and efficiency of antibody labeling.
For suitable applications and species reactivity, please refer to the unconjugated version of this clone.

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## Supplementary info

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

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|---|---|
| **Activity summary** | ADRM1 known also as ARM-1 or arm protein is an essential component of the proteasome system playing an important role in ubiquitin-proteasome pathway. Its molecular mass is about 42-46 kDa. ADRM1 protein is expressed across various tissues with significant presence in tissues requiring active protein degradation such as liver muscle and neurons. This protein interacts with other subunits in large protein complexes contributing to the regulation of protein turnover. |
| **Biological function summary** | The ADRM1/ARM-1 protein binds ubiquitinated substrates and shuttles them to the 26S proteasome for degradation. It acts as a receptor on the regulatory particle of the proteasome complex where it recruits deubiquitinating enzymes. This positions ADRM1 as an integral part of the protein degradation machinery ensuring removal of damaged misfolded or unnecessary proteins and maintaining cellular protein homeostasis. |
| **Pathways** | ADRM1 plays a significant role within the ubiquitin-proteasome pathway which is important for protein catabolism. It partners with regulatory proteins like Rpn13 to mediate the recognition and processing of polyubiquitinated substrates. The efficient functioning of this pathway highlights its importance in regulating the cell cycle and various signaling pathways including NF-kB signaling which affects immune response and apoptosis. |
| **Associated diseases and disorders** | Dysfunction of ADRM1 can lead to pathological consequences. Its aberrant activity links to cancer particularly in solid tumors due to its role in controlling the degradation of cell cycle proteins. Additionally alterations in ADRM1 functionality can affect Alzheimer's disease as proper protein turnover is important in preventing accumulation of protein aggregates. Interactions with proteins like USP14 and UCHL5 further illustrate ADRM1's involvement in these pathologies marking it as a potential therapeutic target. |

## 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.

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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.

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