abcam

**ab313700**

# Anti-TREM1 antibody [EPR26207-34]

Recombinant | RabMAb | 20ul selling size

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR26207-34 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.507 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/50 |
| **Notes** | - |

### Not recommended

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

## WB

**Not recommended**

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

## IHC-P

**Not recommended**

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

## IP

**Not recommended**

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

## ICC/IF

**Not recommended**

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

## Target data

See full target information TREM1

| | |
|---|---|
| **Function** | Isoform 1. Cell surface receptor that plays important roles in innate and adaptive immunity by amplifying inflammatory responses (PubMed:10799849, PubMed:21393102). Upon activation by various ligands such as PGLYRP1, HMGB1 or HSP70, multimerizes and forms a complex with transmembrane adapter TYROBP/DAP12 (PubMed:17568691, PubMed:25595774, PubMed:29568119). In turn, initiates a SYK-mediated cascade of tyrosine phosphorylation, activating multiple downstream mediators such as BTK, MAPK1, MAPK3 or phospholipase C-gamma (PubMed:14656437, PubMed:21659545). This cascade promotes the neutrophil- and macrophage-mediated release of pro-inflammatory cytokines and/or chemokines, as well as their migration and thereby amplifies inflammatory responses that are triggered by bacterial and fungal infections (PubMed:17098818, PubMed:17568691). By also promoting the amplification of inflammatory signals that are initially triggered by Toll-like receptor (TLR) and NOD-like receptor engagement, plays a major role in the pathophysiology of acute and chronic inflammatory diseases of different etiologies including septic shock and atherosclerosis (PubMed:11323674, PubMed:21393102). Isoform 2. Acts as a decoy receptor, counterbalancing TREM1 pro-inflammatory activity through the neutralization of its ligand. |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **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 |

## 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.

## Supplementary info

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

| | |
|---|---|
| **Activity summary** | Triggering receptor expressed on myeloid cells 1 (TREM1) is a transmembrane receptor involved in amplifying inflammatory responses. TREM1 is known alternatively as CD354. This protein has a molecular mass of approximately 30 kDa and is expressed on the surface of neutrophils monocytes and macrophages. The receptor participates in innate immune responses and acts as an amplifier for inflammatory signals. It is often found in tissues that are engaged in inflammatory processes including lungs and intestines. |
| **Biological function summary** | TREM1 significantly enhances the immune response by activating myeloid cells. It does not form a standalone unit; instead it works with the adapter protein DNAX-activating protein of 12 kDa (DAP12) which pairs with TREM1 to transduce signals that promote cytokine and chemokine release. Through this interaction the receptor plays a role in the defense against bacterial infection boosting the body's immune response during pathogen assault. This function positions TREM1 as an important player in the regulation of acute inflammation. |
| **Pathways** | TREM1 engages significantly in the Toll-like receptor (TLR) signaling pathway and NF-kB pathway. In these pathways TREM1 interacts with various proteins that include TLRs and DAP12 intensifying inflammatory responses. The integration of TREM1 within these pathways suggests that it acts as an important modulator of inflammation capable of enhancing TLR-mediated signals for a stronger immune response. |
| **Associated diseases and disorders** | TREM1 connections extend to sepsis and inflammatory bowel disease (IBD). In the context of sepsis TREM1 expression correlates with increased inflammation and poor prognosis where it interacts with proteins involved in inflammatory pathways such as TNF-α. Concerning IBD TREM1's role in promoting inflammation links it to the pathogenesis of this disease where it could influence the severity and progression of IBD-related inflammation. Given these relationships therapeutic strategies targeting TREM1 could hold potential in modulating these conditions. |

## 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.

---

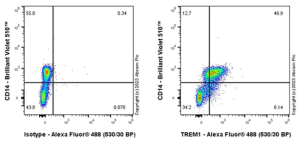
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

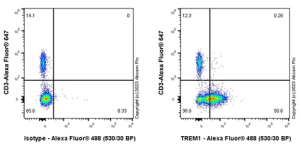
---

## 2 product images



### Flow Cytometry - Anti-TREM1 antibody [EPR26207-34] (ab313700)

Flow cytometric analysis of human PBMC (human peripheral blood mononuclear cell) cells labelling TREM1 with ab313700 at 1/50 dilution (1ug)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody. Cells are co-stained with CD14 conjugated to Brilliant Violet 510™. Gated on viable cells.



### Flow Cytometry - Anti-TREM1 antibody [EPR26207-34] (ab313700)

Flow cytometric analysis of human PBMC (human peripheral blood mononuclear cell) cells labelling TREM1 with ab313700 at 1/50 dilution (1ug)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody. Cells are co-stained with CD3 conjugated to Alexa Fluor® 647. Gated on viable cells.

---

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