abcam

ab106153

Anti-TREM1 antibody [L5-B8]

Key facts

Isotype	IgG2a
Host species	Rat
Storage buffer	Constituents: PBS, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Protein within Mouse Trem1. The exact immunogen used to generate this antibody is proprietary information. Database link Q9JKE2
Clone number	L5-B8
Purification technique	Affinity purification Protein G
Purification notes	ab106153 is 0.2 µm filtered.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/50
Notes	ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

IHC-Fr

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information Trem1

Function

Cell surface receptor that plays important roles in innate and adaptive immunity by amplifying inflammatory responses. Upon activation by various ligands such as PGLYRP1, HMGB1 or HSP70, multimerizes and forms a complex with transmembrane adapter TYROBP/DAP12. In turn, initiates a SYK-mediated cascade of tyrosine phosphorylation, activating multiple downstream mediators such as BTK, MAPK1, MAPK3 or phospholipase C-gamma. 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:23241959, PubMed:27328755). 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 (By similarity).

Storage

Shipped at conditions	Blue Ice
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

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

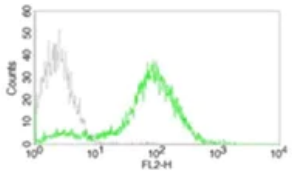
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Flow Cytometry - Anti-TREM1 antibody [L5-B8] (ab106153)

ab106153 in flow cytometry. Goat ant-rat-PE (grey line) and ab106153/Goat anti-rat-PE (green line).

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