

**Mouse Trem2 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP19275a**

**Specification**

**Mouse Trem2 Antibody (N-term) - Product Information**

Application	WB, IHC-P-Leica,E
Primary Accession	<a href="#">O99NH8</a>
Other Accession	<a href="#">NP_112544.1</a>
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	22-48

**Mouse Trem2 Antibody (N-term) - Additional Information**

**Gene ID** 83433

**Other Names**

Triggering receptor expressed on myeloid cells 2, TREM-2, Triggering receptor expressed on monocytes 2, Trem2, Trem2a, Trem2b, Trem2c

**Target/Specificity**

This Mouse Trem2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 22-48 amino acids from the N-terminal region of mouse Trem2.

**Dilution**

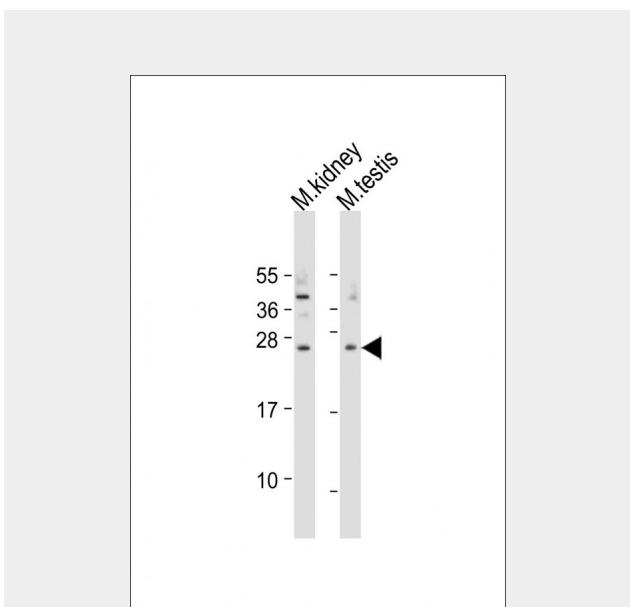
WB~~1:500  
 IHC-P-Leica~~1:500

**Format**

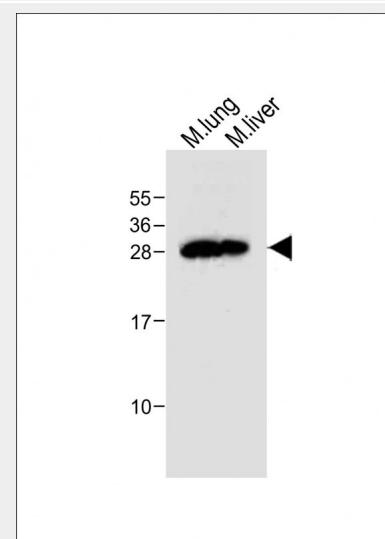
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.



All lanes : Anti-Mouse Trem2 Antibody (N-term) at 1:500-1000 dilution Lane 1: Mouse kidney tissue lysate Lane 2: Mouse testis tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-Mouse Trem2 Antibody (N-term) at 1:500 dilution Lane 1: Mouse lung tissue lysate Lane 2: Mouse liver tissue lysate

## Precautions

Mouse Trem2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Mouse Trem2 Antibody (N-term) - Protein Information

Name Trem2

**Synonyms** Trem2a, Trem2b, Trem2c

## Function

Forms a receptor signaling complex with TYROBP which mediates signaling and cell activation following ligand binding  
(PubMed:<a href="http://www.uniprot.org/citations/11241283">11241283</a>)

target="\_blank">>11241283</a>). Acts as a receptor for amyloid-beta protein 42, a cleavage product of the amyloid-beta precursor protein APP, and mediates its uptake and degradation by microglia (PubMed:<a href="http://www.uniprot.org/citations/27477018">

target="\_blank">>27477018</a>,  
PubMed:<a href="http://www.uniprot.org/ci

tations/29518356" target="\_blank">29518356

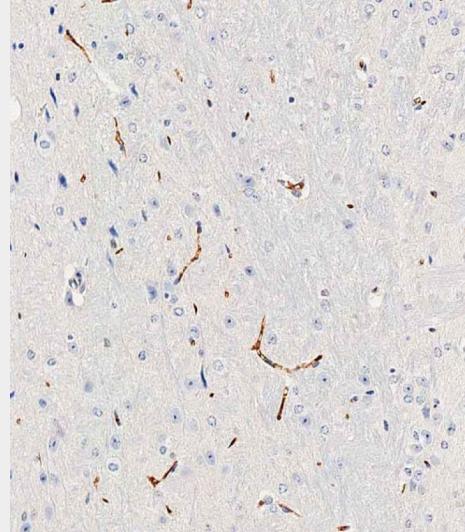
Binding to amyloid-beta 42 mediates microglial activation, proliferation, migration, apoptosis and expression of pro-inflammatory cytokines, such as IL6R and CCL3, and the anti- inflammatory cytokine ARG1 (PubMed:<a href="http://www.uniprot.org/citations/27477018"

target="\_blank">>27477018</a>,  
PubMed:<a href="http://www.uniprot.org/ci

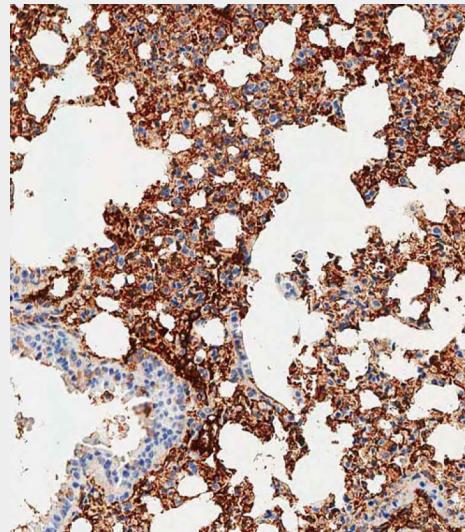
(PubMed:<a href="http://www.uniprot.org/citations/27477018" data-bbox="113 860 500 888" data-label="Text">27477018</a>)

target="\_blank">27477018</a>). Binds phospholipids (preferably anionic lipids) such as phosphatidylserine, phosphatidylethanolamine, phosphatidylglycerol and sphingomyelin (By similarity). Regulates microglial proliferation by acting as an upstream regulator of the Wnt/beta-catenin signaling cascade (PubMed:<a href="http://www.uniprot.org/c

Lysates/proteins at 20 µg per lane.  
Secondary Goat Anti-Rabbit IgG, (H+L),  
Peroxidase conjugated at 1/10000 dilution.  
Predicted band size : 25 kDa  
Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue using AP19275a performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



## Immunohistochemical analysis of paraffin-embedded mouse lung tissue using AP19275a performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at

itations/28077724" target="\_blank">28077724</a>). Required for microglial phagocytosis of apoptotic neurons (PubMed:<a href="http://www.uniprot.org/citations/24990881" target="\_blank">24990881</a>). Also required for microglial activation and phagocytosis of myelin debris after neuronal injury and of neuronal synapses during synapse elimination in the developing brain (PubMed:<a href="http://www.uniprot.org/citations/15728241" target="\_blank">15728241</a>, PubMed:<a href="http://www.uniprot.org/citations/28592261" target="\_blank">28592261</a>, PubMed:<a href="http://www.uniprot.org/citations/29752066" target="\_blank">29752066</a>, PubMed:<a href="http://www.uniprot.org/citations/25631124" target="\_blank">25631124</a>). Regulates microglial chemotaxis and process outgrowth, and also the microglial response to oxidative stress and lipopolysaccharide (PubMed:<a href="http://www.uniprot.org/citations/30232263" target="\_blank">30232263</a>, PubMed:<a href="http://www.uniprot.org/citations/29663649" target="\_blank">29663649</a>, PubMed:<a href="http://www.uniprot.org/citations/28483841" target="\_blank">28483841</a>, PubMed:<a href="http://www.uniprot.org/citations/29859094" target="\_blank">29859094</a>). It suppresses PI3K and NF-kappa-B signaling in response to lipopolysaccharide; thus promoting phagocytosis, suppressing pro-inflammatory cytokine and nitric oxide production, inhibiting apoptosis and increasing expression of IL10 and TGFB (PubMed:<a href="http://www.uniprot.org/citations/29663649" target="\_blank">29663649</a>). During oxidative stress, it promotes anti-apoptotic NF-kappa-B signaling and ERK signaling (PubMed:<a href="http://www.uniprot.org/citations/28592261" target="\_blank">28592261</a>). Plays a role in microglial MTOR activation and metabolism (PubMed:<a href="http://www.uniprot.org/citations/28802038" target="\_blank">28802038</a>). Regulates age-related changes in microglial numbers (PubMed:<a href="http://www.uni

room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

### Mouse Trem2 Antibody (N-term) - Background

Trem2 may have a role in chronic inflammations and may stimulate production of constitutive rather than inflammatory chemokines and cytokines. Forms a receptor signaling complex with TYROBP and triggers activation of the immune responses in macrophages and dendritic cells.

### Mouse Trem2 Antibody (N-term) - References

Koth, L.L., et al. J. Immunol. 184(11):6522-6528(2010)  
Whittaker, G.C., et al. J. Biol. Chem. 285(5):2976-2985(2010)  
Peng, Q., et al. Sci Signal 3 (122), RA38 (2010)  
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Chang, J.H., et al. Biochem. Biophys. Res. Commun. 389(1):28-33(2009)  
Hsieh, C.L., et al. J. Neurochem. 109(4):1144-1156(2009)

prot.org/citations/30548312"  
target="\_blank">30548312</a>,  
PubMed:<a href="http://www.uniprot.org/ci  
tations/29752066"  
target="\_blank">29752066</a>,  
PubMed:<a href="http://www.uniprot.org/ci  
tations/25631124"  
target="\_blank">25631124</a>). Triggers  
activation of the immune responses in  
macrophages and dendritic cells (By  
similarity). Mediates cytokine- induced  
formation of multinucleated giant cells  
which are formed by the fusion of  
macrophages (PubMed:<a href="http://ww  
w.uniprot.org/citations/18957693"  
target="\_blank">18957693</a>). In  
dendritic cells, it mediates up-regulation of  
chemokine receptor CCR7 and dendritic cell  
maturation and survival (By similarity).  
Involved in the positive regulation of  
osteoclast differentiation (PubMed:<a href=  
"http://www.uniprot.org/citations/16418779  
" target="\_blank">16418779</a>).

#### **Cellular Location**

[Isoform 1]: Cell membrane; Single-pass  
type I membrane protein

#### **Tissue Location**

Expressed in the brain, specifically in  
microglia (at protein level)  
(PubMed:15728241, PubMed:28802038,  
PubMed:28855301, PubMed:28077724,  
PubMed:28592261, PubMed:29794134,  
PubMed:29752066, PubMed:27477018,  
PubMed:28559417). Expressed in  
macrophages (at protein level)  
(PubMed:11241283, PubMed:28802038,  
PubMed:28559417). Expressed at higher  
levels in the CNS, heart and lung than in  
lymph nodes or in other non-lymphoid  
tissues such as kidney, liver and testis  
(PubMed:12472885). In the CNS not all  
microglia express TREM2  
(PubMed:12472885). Brain regions with an  
incomplete blood-brain barrier had the  
lowest percentages of TREM2 expressing  
microglia, whereas the lateral entorhinal  
and cingulate cortex had the highest  
percentages (PubMed:12472885).

#### **Mouse Trem2 Antibody (N-term) - Protocols**

Provided below are standard protocols that you  
may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)