

## Trem2 Antibody / Triggering receptor expressed on myeloid cells 2 (F47210)

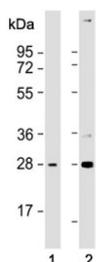
Catalog No.	Formulation	Size
F47210-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F47210-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

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<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Mouse
<b>Format</b>	Antigen affinity purified
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal (rabbit origin)
<b>Isotype</b>	Rabbit Ig
<b>Purity</b>	Antigen affinity
<b>UniProt</b>	Q99NH8
<b>Applications</b>	Western Blot : 1:1000
<b>Limitations</b>	This Trem2 antibody is available for research use only.



Trem2 antibody western blot analysis in mouse heart tissue lysate. Predicted molecular weight ~25 kDa.



Western blot testing of 1) mouse brain and 2) mouse lung lysate with Trem2 antibody. Predicted molecular weight ~25 kDa.

## Description

TREM2 antibody is a key reagent for examining immune function in mouse models of neurodegeneration, inflammation, and lipid metabolism. In mice, triggering receptor expressed on myeloid cells 2 (Trem2) is expressed by microglia, macrophages, and dendritic cells. It signals through DAP12 to regulate phagocytosis, cell survival, and inflammatory responses, making it essential for microglial biology in transgenic Alzheimer disease models.

Mouse Trem2 has been extensively studied in amyloid precursor protein transgenic strains, where loss of Trem2 impairs microglial clustering around plaques and worsens amyloid deposition. These findings parallel human data showing that TREM2 variants increase Alzheimer risk, validating the use of mouse models to dissect mechanistic pathways. Beyond neurodegeneration, mouse Trem2 is also involved in metabolic regulation, obesity, and bone homeostasis, where it modulates macrophage activity.

At the molecular level, mouse Trem2 contains an extracellular immunoglobulin-like domain that interacts with lipids and apolipoproteins, a transmembrane domain linked to DAP12, and a short cytoplasmic tail. Activation leads to phosphorylation of DAP12 ITAM motifs and recruitment of SYK kinase, initiating downstream signaling cascades that regulate cytoskeletal reorganization and cytokine release. These pathways contribute to microglial migration, plaque clearance, and survival in neuroinflammatory settings.

The TREM2 antibody is widely applied in immunohistochemistry, immunofluorescence, flow cytometry, and western blotting to study protein expression in mouse tissues. These applications are essential for characterizing microglial responses in neurodegenerative disease models, examining innate immunity, and investigating metabolic disorders. For researchers using mouse systems to study neurodegeneration, the TREM2 antibody provides a highly specific detection tool. NSJ Bioreagents offers validated antibodies that ensure reproducibility and accuracy in advanced animal model research.

## Application Notes

Titration of the Trem2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

A portion of amino acids 22-48 from the mouse protein was used as the immunogen for this Trem2 antibody.

## Storage

Aliquot the Trem2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.