

Rudolf-Wissell-Str. 28a 37079 Göttingen, Germany

Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

TMEM119 mouse specific

Cat.No. 400 002; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 μ l antiserum, lyophilized. For reconstitution add 200 μ l H_2O , then aliquot and store at -20°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	WB: not tested yet IP: not tested yet ICC: not tested yet IHC: 1:500 up to 1:1000 (see remarks) IHC-P: 1:500
Immunogen	Recombinant protein corresponding to the C-terminal region of mouse TMEM119 (UniProt Id: Q8R138)
Reactivity	Reacts with: mouse (Q8R138). Weaker signal: rat (B2RYL3). Other species not tested yet.
Remarks	This antibody is recommended for mouse only. Due to significant differences of TMEM 119 among species, cross-reactivity is unlikely. IHC: The antiserum produces some unspecific background in the cerebellum.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Background

Microglia are resident myeloid cells of the central nervous system (CNS). They are ontogenetically and functionally distinct from monocyte-derived macrophages that infiltrate the CNS under pathological conditions. Transmembrane protein 119 (TMEM119) is a single-pass type I membrane protein that has been identified as a useful, highly selective microglia marker protein.

Selected References for 400 002

Microglia-neuron crosstalk through Hex-GM2-MGL2 maintains brain homeostasis.

Frosch M, Shimizu T, Wogram E, Amann L, Gruber L, Groisman AI, Fliegauf M, Schwabenland M, Chhatbar C, Zechel S, Rosewich H. et al.

Nature (2025) 6468086: 913-924. . IHC, IHC-P; tested species: mouse

SorLA restricts TNFa release from microglia to shape a glioma-supportive brain microenvironment.

Kaminska P, Ovesen PL, Jakiel M, Obrebski T, Schmidt V, Draminski M, Bilska AG, Bieniek M, Anink J, Paterczyk B, Jensen AMG, et al.

EMBO reports (2024) 255: 2278-2305. . IHC; tested species: mouse

 $Redefining\ the\ ontogeny\ of\ hyalocytes\ as\ yolk\ sac-derived\ tissue-resident\ macrophages\ of\ the\ vitreous\ body.$

Rosmus DD, Koch J, Hausmann A, Chiot A, Arnhold F, Masuda T, Kierdorf K, Hansen SM, Kuhrt H, Fröba J, Wolf J, et al. Journal of neuroinflammation (2024) 211: 168. IHC; tested species: mouse

Identification of a protective microglial state mediated by miR-155 and interferon-γ signaling in a mouse model of Alzheimer's disease

Yin Z, Herron S, Silveira S, Kleemann K, Gauthier C, Mallah D, Cheng Y, Margeta MA, Pitts KM, Barry JL, Subramanian A, et al. Nature neuroscience (2023) 267: 1196-1207. IHC; tested species: mouse

Microglia have limited influence on early prion pathogenesis, clearance, or replication.

Race B, Williams K, Baune C, Striebel JF, Long D, Thomas T, Lubke L, Chesebro B, Carroll JA

PloS one (2022) 1710: e0276850. . IHC-P; tested species: mouse

Expression of toll like receptor 8 (TLR8) in specific groups of mouse hippocampal interneurons.

Seizer L, Rahimi S, Santos-Sierra S, Drexel M

PloS one (2022) 175: e0267860. . **IHC; tested species: mouse**

Plaque contact and unimpaired Trem2 is required for the microglial response to amyloid pathology.

Wood JI, Wong E, Joghee R, Balbaa A, Vitanova KS, Stringer KM, Vanshoiack A, Phelan SJ, Launchbury F, Desai S, Tripathi T, et al. Cell reports (2022) 418: 111686. . IHC; tested species: mouse

Macrophages in close proximity to the vitreoretinal interface are potential biomarkers of inflammation during retinal vascular disease.

Rajesh A, Droho S, Lavine JA

Journal of neuroinflammation (2022) 191: 203. . IHC; tested species: mouse

Fascin-1 is Highly Expressed Specifically in Microglia After Spinal Cord Injury and Regulates Microglial Migration.

Yu S, Cheng L, Tian D, Li Z, Yao F, Luo Y, Liu Y, Zhu Z, Zheng M, Jing J

Frontiers in pharmacology (2021) 12: 729524. . IHC-P; tested species: mouse

Key Role of Microglial Matrix Metalloproteinases in Choroidal Neovascularization.

Kim J, Kim JH, Do JY, Lee JY, Yanai R, Lee IK, Suk K, Park DH

Frontiers in cellular neuroscience (2021) 15: 638098. . **IHC; tested species: mouse**

Mapping the origin and fate of myeloid cells in distinct compartments of the eye by single-cell profiling.

Wieghofer P, Hagemeyer N, Sankowski R, Schlecht A, Staszewski O, Amann L, Gruber M, Koch J, Hausmann A, Zhang P, Boneva S, et al.

The EMBO journal (2021) 406: e105123. . IHC; tested species: mouse

Peculiar protrusions along tanycyte processes face diverse neural and nonneural cell types in the hypothalamic parenchyma. Pasquettaz R, Kolotuev I, Rohrbach A, Gouelle C, Pellerin L, Langlet F

The Journal of comparative neurology (2021) 5293: 553-575. . IHC; tested species: mouse

Access the online factsheet including applicable protocols at https://sysy.com/product/400002 or scan the QR-code.



FAQ - How should I store my antibody?

Shipping Conditions

 All our antibodies and control proteins / peptides are shipped lyophilized (vacuum freezedried) and are stable in this form without loss of quality at ambient temperatures for several weeks.

Storage of Sealed Vials after Delivery

- Unlabeled and biotin-labeled antibodies and control proteins should be stored at 4°C before reconstitution. They must not be stored in the freezer when still lyophilized!
 Temperatures below zero may cause loss of performance.
- Fluorescence-labeled antibodies should be reconstituted immediately upon receipt. Long term storage (several months) may lead to aggregation.
- **Control peptides** should be kept at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- The storage freezer must not be of the frost-free variety ("no-frost freezer"). This cycle
 between freezing and thawing (to reduce frost-build-up), which is exactly what should be
 avoided. For the same reason, antibody vials should be placed in an area of the freezer that
 has minimal temperature fluctuations, for instance towards the back rather than on a door
 shelf.
- Aliquot the antibody and store frozen (-20°C to -80°C). Avoid very small aliquots (below 20 µl)
 and use the smallest storage vial or tube possible. The smaller the aliquot, the more the stock
 concentration is affected by evaporation and adsorption of the antibody to the surface of the
 storage vial or tube. Adsorption of the antibody to the surface leads to a substantial loss of
 activity.
- The addition of glycerol to a final concentration of 50% lowers the freezing point of your stock and keeps your antibody at -20°C in liquid state. This efficiently avoids freeze and thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

• Store at -20°C to -80°C.

Monoclonal Antibodies

- Ascites and hybridoma supernatant should be stored at -20°C up to -80°C. Prolonged storage at 4°C is not recommended! Unlike serum, ascites may contain proteases that will degrade the antibodies.
- **Purified IgG** should be stored at -20°C up to -80°C. Adding a carrier protein like BSA will increase long term stability. Many of our antibodies already contain carrier proteins. Please refer to the data-sheet for detailed information.

Polyclonal Antibodies

- Crude antisera: With anti-microbials added, they may be stored at 4°C. However, frozen storage (-20°C up to -80°C) is preferable.
- Affinity purified antibodies: Less robust than antisera. Storage at -20°C up to -80°C is
 recommended. Adding a carrier protein like BSA will increase long term stability. Most of our
 antibodies already contain carrier proteins. Please refer to the data-sheet for detailed
 information.

Fluorescence-labeled Antibodies

• Store as a liquid with 1:1 (v/v) glycerol at -20°C. Protect these antibodies from light exposure.

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All our purified antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add
 the amount of deionized water given in the respective datasheet. If higher volumes are
 preferred, add water as mentioned above and then the desired amount of PBS and a
 stabilizing carrier protein (e.g. BSA) to a final concentration of 2%. Some of our antibodies
 already contain albumin. Take this into account when adding more carrier protein.
 For complete reconstitution, carefully remove the lid. After adding water, briefly vortex the
 solution. You can spin down the liquid by placing the vial into a 50 ml centrifugation tube filled
 with paper.
- If desired, add small amounts of azide or thimerosal to prevent microbial growth. This is especially recommended if you want to keep an aliquot a 4°C.
- After reconstitution of fluorescence-labeled antibodies, add 1:1 (v/v) glycerol to a final
 concentration of 50%. This lowers the freezing point of your stock and keeps your antibody in
 liquid state at -20°C.
- Glycerol may also be added to unlabeled primary antibodies. It is a suitable way to avoid freezethaw cycles.
- Please refer to our tips and hints for subsequent storage of reconstituted antibodies and control peptides and proteins.