10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

TrpM7 Antibody
TRPM7 Antibody, Clone S74-25
Catalog # ASM10194

Specification

TrpM7 Antibody - Product Information

Application	**WB, IHC, ICC, AM**
Primary Accession	Q923J1
Other Accession	NP_001157797.1
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human, Mouse, Rat**
Clonality	**Monoclonal**

Description
Mouse Anti-Mouse TrpM7 Monoclonal IgG1

Target/Specificity
Detects ~220kDa. No cross-reactivity against TrpM6.

Other Names
CHAK antibody, CHAK1 antibody, Channel kinase 1 antibody, Channel-kinase 1 antibody, Long transient receptor potential channel 7 antibody, LTrpC-7 antibody, LTRPC7 antibody, Transient receptor potential cation channel subfamily M member 7 antibody, TRP PLIK antibody, TRPM7 antibody, TRPM7_HUMAN antibody

Immunogen
Fusion protein amino acids 1817-1863 (C- terminus) of mouse TrpM7

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SMC-316 was sufficient for detection of TrpM7 in 10 µg of COS cell lysate transiently transfected with TprM7 by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization
Membrane

TrpM7 Antibody - Protocols

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

- Western Blot

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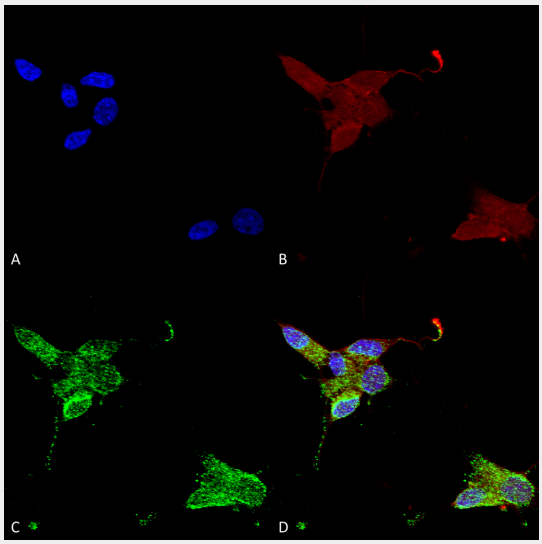
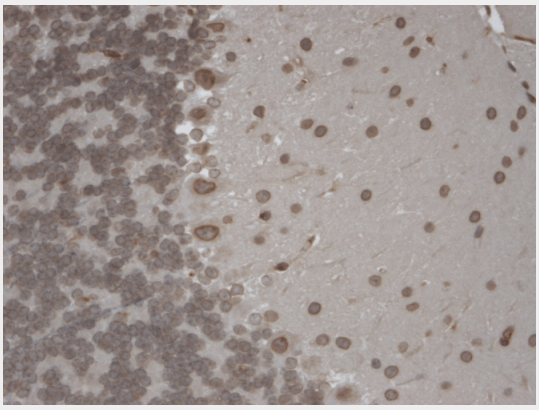
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TrpM7 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-TrpM7 Monoclonal Antibody, Clone S74 (ASM10194). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-TrpM7 Monoclonal Antibody (ASM10194) at 1:50 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) TrpM7 Antibody (D) Composite.



Immunohistochemistry analysis using Mouse Anti-TrpM7 Monoclonal Antibody, Clone S74 (ASM10194). Tissue: Brain Slice. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-TrpM7 Monoclonal Antibody (ASM10194) at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 µl for 5 minutes at RT. Localization: Nuclear staining of both neurons and glia.

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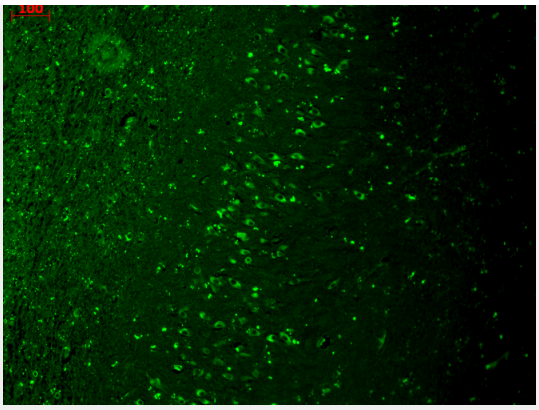
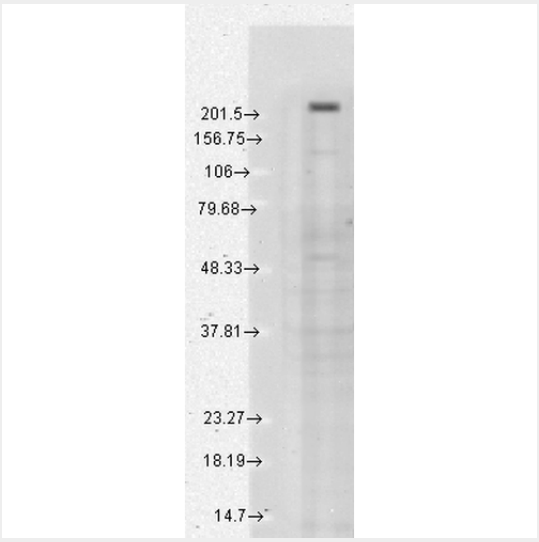


Immunohistochemistry analysis using Mouse Anti-TrpM7 Monoclonal Antibody, Clone S74 (ASM10194). Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-TrpM7 Monoclonal Antibody (ASM10194) at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



Western Blot analysis of Human Cell lysates showing detection of TrpM7 protein using Mouse Anti-TrpM7 Monoclonal Antibody, Clone S74 (ASM10194). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-TrpM7 Monoclonal Antibody (ASM10194) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

TrpM7 Antibody - Background

TRPs, mammalian homologs of the Drosophila transient receptor potential (trp) protein, are ion channels that are thought to mediate capacitative calcium entry into the cell. TRP-PLIK is a protein that is both an ion channel and a kinase. As a channel, it conducts calcium and monovalent cations to depolarize cells and increase intracellular calcium. As a kinase, it is capable of phosphorylating itself and other substrates. The kinase activity is necessary for channel function, as shown by its dependence on intracellular ATP and by the kinase mutants (1, 2).

TrpM7 Antibody - References

1. Brauchi S., Krapivinsky G., Krapivinsky L., Clapham D.E. (2008) Proc Natl Acad Sci USA. 105(24): 8304-8308.
2. Numata T, Okada Y. (2008) J Biol Chem. 283(22): 15097-15103.