

**NALCN Antibody**  
**NALCN Antibody, Clone S187-7**  
**Catalog # ASM10251****Specification**

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**NALCN Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O6Q760</a>
Other Accession	<a href="#">NP_705894.1</a>
Host	<b>Mouse</b>
Isotype	<b>IgG1</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Monoclonal</b>

**Description**

Mouse Anti-Rat NALCN Monoclonal IgG1

**Target/Specificity**

Detects ~200kDa.

**Other Names**

VGCNL1 Antibody, Canlon Antibody, Sodium leak channel non-selective protein Antibody, Voltage gated channel-like protein 1 Antibody, A530023G15Rik Antibody, bA430M15.1 Antibody, FLJ23913 Antibody, FLJ44659 Antibody, FLJ44764 Antibody, Four repeat voltage gated ion channel Antibody, MGC74524 Antibody, Putative 4 repeat voltage gated ion channel Antibody, Sodium leak channel non-selective protein Antibody

**Immunogen**

Fusion protein amino acids 1659-1738 (cytoplasmic C-terminus) of rat NALCN

**Purification**

Protein G Purified

Storage **-20°C****Storage Buffer**

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

Shipping Temperature **Blue Ice or 4°C****Certificate of Analysis**

1 µg/ml of SMC-417 was sufficient for detection of NALCN in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

Membrane

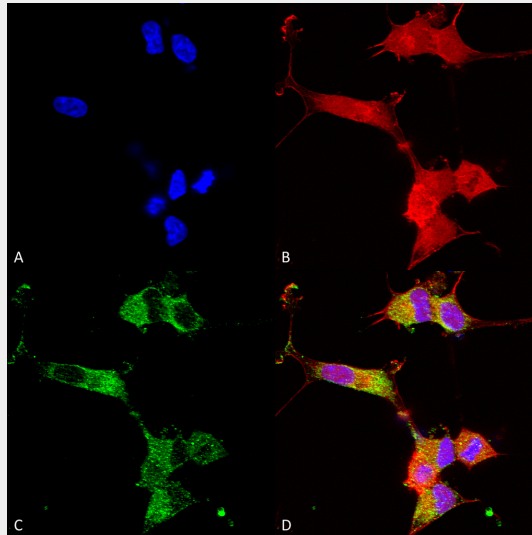
**NALCN Antibody - Protocols**

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

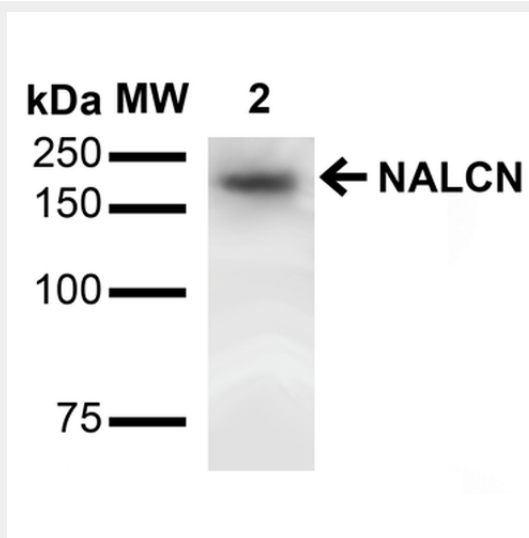
- [Western Blot](#)

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

**NALCN Antibody - Images**



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-NALCN Monoclonal Antibody, Clone N187/7 (ASM10251). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-NALCN Monoclonal Antibody (ASM10251) at 1:100 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) NALCN Antibody (D) Composite.



Western Blot analysis of Rat Brain showing detection of ~200 kDa NALCN protein using Mouse Anti-NALCN Monoclonal Antibody, Clone N187/7 (ASM10251). Lane 1: Molecular Weight (MW) Ladder. Lane 3: Rat Brain Membrane. Load: 15 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST.

Primary Antibody: Mouse Anti-NALCN Monoclonal Antibody (ASM10251) at 1:1000 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:2000 for 60 min at RT. Color Development: ECL solution for 6 min at RT. Predicted/Observed Size: ~200 kDa.

### **NALCN Antibody - Background**

NALCN (sodium leak channel non-selective protein), also known as Canlon or VGCNL1 (voltage gated channel-like protein 1), is a 1738 amino acid multi-pass membrane protein that belongs to the cation-nonspecific channel family. NALCN is highly conserved in mammals and is widely expressed in the central nervous system. Activated by NK-1R, NALCN is a voltage-independent, nonselective cation channel which is permeable to sodium, potassium and calcium ions. NALCN is responsible for background sodium ion leak conductance in neurons and regulates basal excitability of the nervous systems. Defects of NALCN in mice causes disruption in respiratory rhythm and death occurs within 24 hours of birth. Three isoforms of NALCN exist due to alternative splicing events.

### **NALCN Antibody - References**

1. Lee, J.H., Cribbs, L.L. and Perez-Reyes, E. (1999) FEBS Lett. 445: 231-236.
2. Lu, B., Su, Y., Das, S., Liu, J., Xia, J. and Ren, D. (2007) Cell 129: 371-383.
3. Jospin, M., et al. (2007) Curr. Biol. 17: 1595-1600.
4. Gaultier, C. and Gallego, J. (2008) Appl. Physiol. 104: 1522-1530.
5. Yeh, E., et al. (2008) PLoS Biol. 6: e55.