

**SNAT1 Antibody**  
**SNAT1 Antibody, Clone S104-32**  
**Catalog # ASM10235**

**Specification**

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**SNAT1 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9JM15</a>
Other Accession	<a href="#">NP_620187.1</a>
Host	<b>Mouse</b>
Isotype	<b>IgG1</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Monoclonal</b>

**Description**

Mouse Anti-Rat SNAT1 Monoclonal IgG1

**Target/Specificity**

Detects ~50kDa.

**Other Names**

SLC38A1 Antibody, amino acids transporter A1 Antibody, ATA1 Antibody, NAT2 Antibody, sodium coupled neutral amino acids transporter 1 Antibody, Amino acid transporter system A1 Antibody, N-system amino acid transporter 2 Antibody, S38A1 Antibody, SAT1 Antibody, SNAT 1 Antibody, Solute carrier family 38 member 1 Antibody, System A amino acid transporter 1 Antibody, System N amino acid transporter 1 Antibody

**Immunogen**

Fusion protein amino acids 1- 63 of rat SNAT1

**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-401 was sufficient for detection of SNAT1 in 20 µg of lysates from neocortical neurons cultured under amino acid starvation conditions and assayed by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

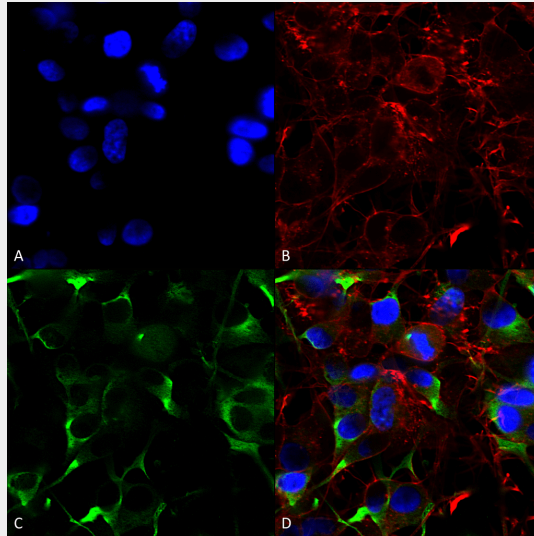
Cell Membrane

**SNAT1 Antibody - Protocols**

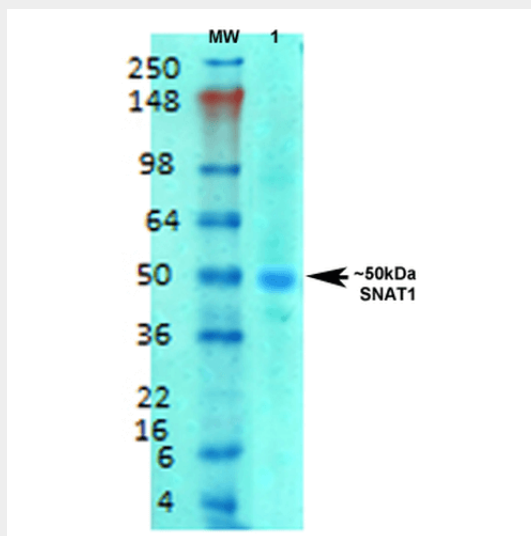
Provided below are standard protocols that you may find useful for product applications.

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

### SNAT1 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SNAT1 Monoclonal Antibody, Clone N104/32 (ASM10235). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-SNAT1 Monoclonal Antibody (ASM10235) at 1:200 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) SNAT1 Antibody (D) Composite.



Western Blot analysis of Rat brain membrane lysate showing detection of SLC38A1 protein using Mouse Anti-SLC38A1 Monoclonal Antibody, Clone N104/32 (ASM10235). Primary Antibody: Mouse

Anti-SLC38A1 Monoclonal Antibody (ASM10235) at 1:1000.

### **SNAT1 Antibody - Background**

The sodium-coupled neutral amino acid transporters (SNAT) of the SLC38 gene family include System A subtypes SNAT1, SNAT2 and SNAT4 and System N subtypes SNAT3 and SNAT5. The SLC38 transporters are essential for the uptake of nutrients, energy production, metabolism, detoxification, and the cycling of neurotransmitters. The SNAT1 protein, also designated ATA1 or NAT2 is encoded by the human gene SLC38A1 which maps to chromosome 12q13.11. SNAT1 is responsible for the transport of glutamine, an intermediate in the synthesis of urea, and may be involved in the generation of glutamate in the retina. SNAT1 protein may be detected in some tissues such as heart, brain and placenta and expression levels are enriched in certain neuronal populations within the CNS. SNAT1 is not present in astrocytes.

### **SNAT1 Antibody - References**

1. Hatanaka T., et al. (2000) *Biochim. Biophys. Acta* 1467: 1-6.
2. Wang H., et al. (2000) *Biochem. Biophys. Res. Commun.* 273: 1175-1179.
3. Gu S., et al. (2001) *J. Biol. Chem.* 276: 24137-24144.
4. Freeman T.L., et al. (2002) *Arch. Biochem. Biophys.* 400: 215-222.
5. Pali S.S., et al. (2004) *J. Biol. Chem.* 279: 3463-3471.
6. Sidoryk M., et al. (2004) *Neuroreport.* 15: 575-578. Erratum in: 2004. *Neuroreport.* 15: 533.
7. Desforges, M., et al. (2006) *Am. J. Physiol. Cell. Physiol.* 290: 305-312.