

**GABA-A Receptor Alpha 4 Antibody**  
**GABA-A Receptor Alpha 4 Antibody, Clone S398A-34**  
**Catalog # ASM10321**

**Specification**

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**GABA-A Receptor Alpha 4 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P28471</a>
Other Accession	<a href="#">NP_542154.3</a>
Host	<b>Mouse</b>
Isotype	<b>IgG1</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Monoclonal</b>

**Description**

Mouse Anti-Rat GABA-A Receptor Alpha4 Monoclonal IgG1

**Target/Specificity**

Detects ~60kDa. Does not cross-react with other GABA-A-Receptor Alpha subunits.

**Other Names**

GABA A receptor subunit alpha 4 Antibody, GABRA4 Antibody, Gamma aminobutyric acid A receptor Alpha 4 Antibody

**Immunogen**

Fusion protein amino acids 410-450 (Cytoplasmic C-terminus) of rat GABA-A-Receptor Alpha 4

**Purification**

Protein G Purified

Storage **-20°C**

**Storage Buffer**

PBS pH7.4, 50% glycerol, 0.1% sodium azide

Shipping Temperature **Blue Ice or 4°C**

**Certificate of Analysis**

A 1:100 dilution of SMC-489 was sufficient for detection of GABA-A R, Alpha4 in 20 µg of mouse brain lysate by ECL immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

Cell Junction | Synapse | Postsynaptic Cell Membrane | Cell Membrane

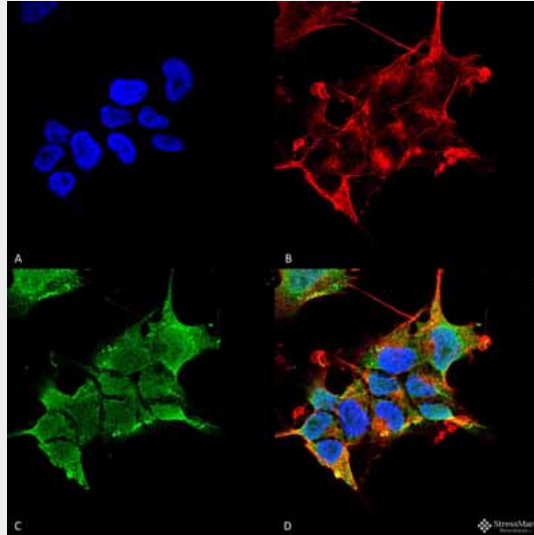
**GABA-A Receptor Alpha 4 Antibody - Protocols**

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

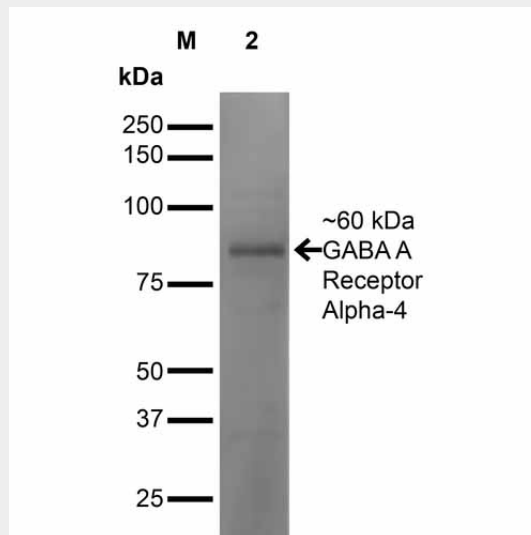
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### GABA-A Receptor Alpha 4 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-GABA-A Receptor Alpha4 Monoclonal Antibody, Clone S398A-34 (ASM10321). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-GABA-A Receptor Alpha4 Monoclonal Antibody (ASM10321) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60min RT, 5min RT. Localization: Cytoplasm. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) GABA-A Receptor Alpha4 Antibody (D) Composite.



Western Blot analysis of Mouse Brain showing detection of ~60 kDa GABA-A-Receptor-Alpha4 protein using Mouse Anti-GABA-A-Receptor-Alpha4 Monoclonal Antibody, Clone S398A-34 (ASM10321). Lane 1: MW Ladder. Lane 2: Mouse Brain. Load: 20 µg. Block: 2% GE Healthcare Blocker for 1 hour at RT. Primary Antibody: Mouse Anti-GABA-A-Receptor-Alpha4 Monoclonal

Antibody (ASM10321) at 1:1000 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:200 for 1 hour at RT. Color Development: ECL solution for 6 min at RT. Predicted/Observed Size: ~60 kDa.

### **GABA-A Receptor Alpha 4 Antibody - Background**

The GABA-A receptor is a member of the superfamily of fast acting ligand-gated ion channels. The individual subunits of these receptors have similar sequences and structural features (1). GABA-A receptors are the major fast inhibitory neurotransmitter gated ion channels in the brain (2). GABA-A Receptor Alpha 4 is associated with epilepsy (3), and research suggests that alterations in GABA- A Receptors subtypes may be involved in the resistance to antiepileptic drugs (4).

### **GABA-A Receptor Alpha 4 Antibody - References**

1. Bracamontes J.R. and Steinbach J.H. (2008) J Bio Chem. 283: 26128-26136.
2. Macdonald R.L., Olsen R.W. (1993) Annu Rev Neurosci. 17: 569-602.
3. Grabenstatter H.L., et al. (2014) Epilepsia. 55(11): 1826-1833.
4. Bethmann K., Fritschy J.M., Brandt C., Loscher W. (2008) Neurobiol Dis. 31(2): 169-187.