

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

Specification

GABA-A Receptor Alpha 4 Antibody - Product Information

Application **ICC/IF, WB**
Primary Accession [P28471](#)
Other Accession [NP_542154.3](#)
Host **Mouse**
Isotype **IgG1**
Reactivity **Human, Mouse, Rat**
Clonality **Monoclonal**

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

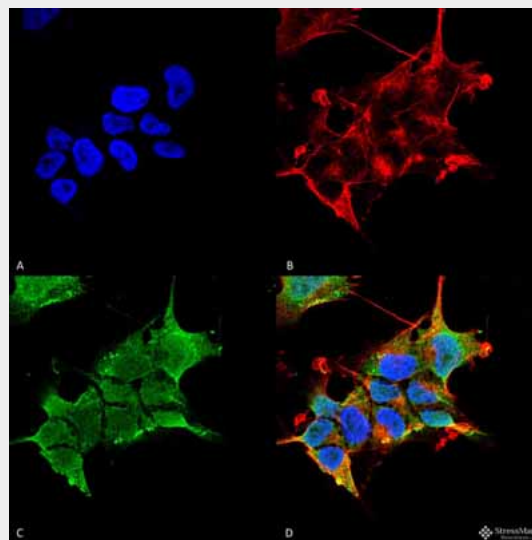
Shipping **Blue Ice or 4°C**
Temperature

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



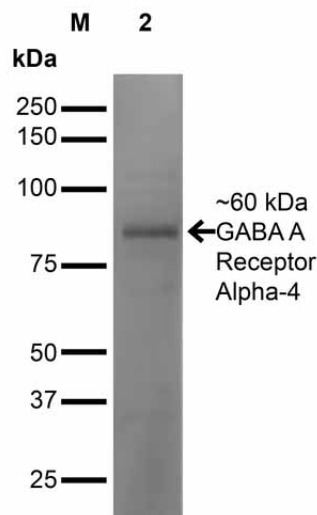
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-GABA-A Receptor Alpha4 Monoclonal Antibody, Clone S398A-34 (ASM10321). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-GABA-A Receptor Alpha4 Monoclonal 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.

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](#)



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.