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# GABARAP Antibody
**Mouse Monoclonal Antibody (Mab)**
**Catalog # AM2025b**

## Specification

### GABARAP Antibody - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | O95166 |
| Other Accession | P60517, Q8MK68, Q9DCD6, Q9GJW7, NP_009209.1 |
| Reactivity | **Human, Mouse** |
| Predicted | **Bovine, Rabbit, Rat** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **IgG1** |

### GABARAP Antibody - Additional Information

**Gene ID** 11337

**Other Names**
Gamma-aminobutyric acid receptor-associated protein, GABA(A) receptor-associated protein, MM46, GABARAP, FLC3B

**Target/Specificity**
Purified His-tagged GABARAP protein(Fragment) was used to produced this monoclonal antibody.

**Dilution**
WB~~1:1000

**Format**
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
GABARAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### GABARAP Antibody - Protein Information

**Name** GABARAP (HGNC:4067)

**Synonyms** FLC3B

**Function** Ubiquitin-like modifier that plays a role in intracellular transport of GABA(A) receptors and its interaction with the cytoskeleton (PubMed:9892355). Involved in autophagy: while LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation (PubMed:15169837, PubMed:20562859, PubMed:22948227). Through its interaction with the reticulophagy receptor TEX264, participates in the remodeling of subdomains of the endoplasmic reticulum into autophagosomes upon nutrient stress, which then fuse with lysosomes for endoplasmic reticulum turnover (PubMed:31006538). Also required for the local activation of the CUL3(KBTBD6/7) E3 ubiquitin ligase complex, regulating ubiquitination and degradation of TIAM1, a guanyl-nucleotide exchange factor (GEF) that activates RAC1 and downstream signal transduction (PubMed:25684205). Thereby, regulates different biological processes including the organization of the cytoskeleton, cell migration and proliferation (PubMed:25684205). Involved in apoptosis (PubMed:15977068).

**Cellular Location**
Cytoplasmic vesicle, autophagosome membrane. Endomembrane system {ECO:0000250|UniProtKB:P60517}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P60517}. Golgi apparatus membrane {ECO:0000250|UniProtKB:P60517}. Cytoplasmic vesicle {ECO:0000250|UniProtKB:P60517}. Note=Largely associated with intracellular membrane structures including the Golgi apparatus and postsynaptic cisternae. Colocalizes with microtubules (By similarity) Localizes also to discrete punctae along the ciliary axoneme (By similarity). {ECO:0000250|UniProtKB:P60517, ECO:0000250|UniProtKB:Q9DCD6}

**Tissue Location**
Heart, brain, placenta, liver, skeletal muscle, kidney and pancreas.

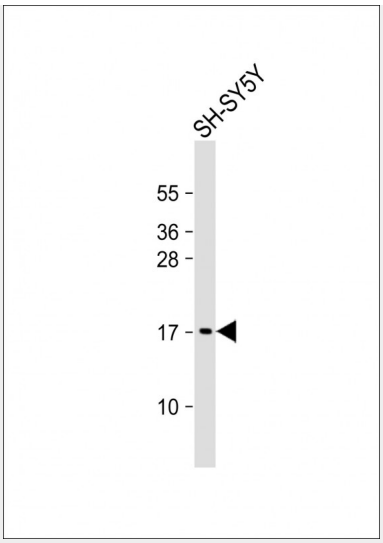
## GABARAP Antibody - Protocols

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

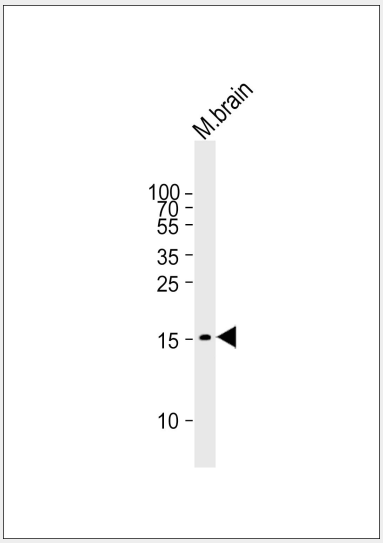
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## GABARAP Antibody - Images

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Anti- at 1:1000 dilution + SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 14 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




"Anti-GABARAP Antibody at 1:1000 dilution + mouse brain lysate Secondary Goat Anti-mouse IgG, (H+L),Peroxidase conjugated at 1/10000 dilution. Predicted band size : 13918 Da Blocking/Dilution buffer: 5% NFDM/TBST."

**GABARAP Antibody - Background**

Gamma-aminobutyric acid A receptors [GABA(A) receptors] are ligand-gated chloride channels that mediate inhibitory neurotransmission. This gene encodes GABA(A) receptor-associated protein, which is highly positively charged in its N-terminus and shares sequence similarity with light chain-3 of microtubule-associated proteins 1A and 1B. This protein clusters neurotransmitter receptors by mediating interaction with the cytoskeleton.

**GABARAP Antibody - References**

Garcia-Martin, E., et al. J. Neurol. (2010) In press :

Komoike, Y., et al. J. Hum. Genet. 55(3):155-162(2010)
Thielmann, Y., et al. Proteins 77(3):637-646(2009)
Schwarten, M., et al. Autophagy 5(5):690-698(2009)
Kirkin, V., et al. Mol. Cell 33(4):505-516(2009)