

# Anti-GABARAP Antibody [JM30-30]

ET1705-53



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 14 kDa
<b>Clone number:</b>	JM30-30

**Description:** Gamma-aminobutyric acid receptor-associated protein is a protein that in humans is encoded by the GABARAP gene. 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. Moreover, GABARAP has an important function in autophagosome mediated autophagy, since it is crucial for autophagosome formation and sequestration of cytosolic cargo into double-membrane vesicles, leading to subsequent degradation after fusion with lysosomes. In addition, GABARAP can mediate selective autophagy because it binds to so-called autophagic receptors (e.g. p62, NBr1), which bind and recruit specific cargo.

**Immunogen:** Synthetic peptide within Human GABARAP aa 10-59 / 117.

**Positive control:** HeLa cell lysate, SH-SY5Y cell lysate, mouse kidney tissue lysate, rat liver tissue lysate, human placenta tissue, human kidney tissue, human pancreas tissue.

**Subcellular location:** Endomembrane system. Cytoplasm, cytoskeleton.

**Database links:** SwissProt: O95166 Human | Q8R3R8 Mouse | P60517 Rat

**Recommended Dilutions:**

<b>WB</b>	1:2,000
<b>IHC-P</b>	1:50-1:200

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

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## Images

**Fig1:** Western blot analysis of GABARAP on different lysates with Rabbit anti-GABARAP antibody (ET1705-53) at 1/2,000 dilution.

Lane 1: HeLa cell lysate  
Lane 2: SH-SY5Y cell lysate

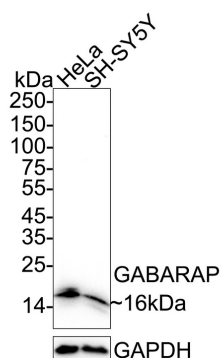
Lysates/proteins at 30 µg/Lane.

Predicted band size: 14 kDa

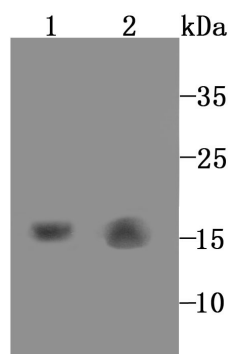
Observed band size: 16 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (ET1705-53) at 1/2,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

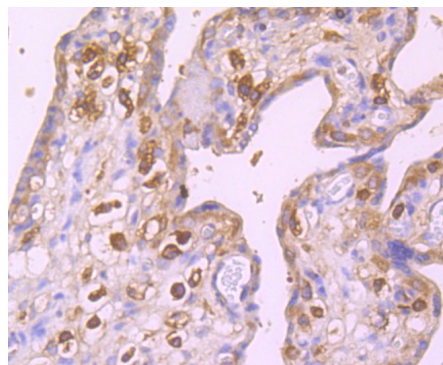


**Fig2:** Western blot analysis of GABARAP on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1705-53, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

**Positive control:**

Lane 1: Mouse kidney tissue lysate

Lane 2: Rat liver tissue lysate



**Fig3:** Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-GABARAP antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1705-53, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

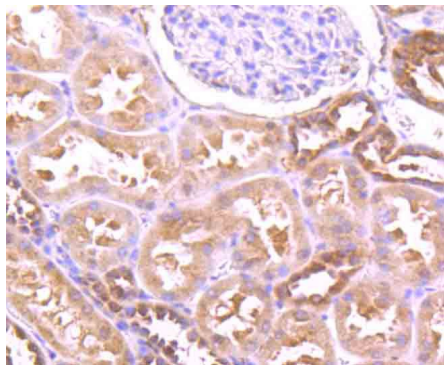
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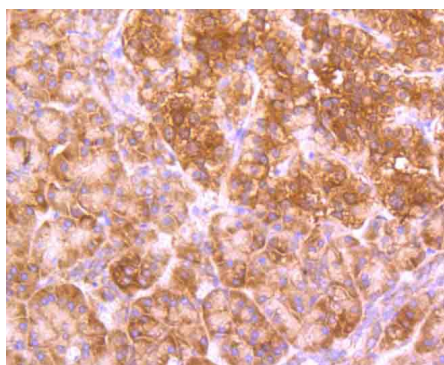
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**Fig4:** Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-GABARAP antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1705-53, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig5:** Immunohistochemical analysis of paraffin-embedded human pancreas tissue using anti-GABARAP antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1705-53, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Sanwald JL. et. al. The GABARAP Co-Secretome Identified by APEX2-GABARAP Proximity Labelling of Extracellular Vesicles. *Cells*. 2020 Jun
2. Agrotis A. et. al. Redundancy of human ATG4 protease isoforms in autophagy and LC3/GABARAP processing revealed in cells. *Autophagy*. 2019 Jun

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