

# Anti-ATG4B Antibody

## ER62759



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat, Monkey
<b>Applications:</b>	WB, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 44 kDa

**Description:** Cysteine protease ATG4B is an enzyme that in humans is encoded by the ATG4B gene. Autophagy is the process by which endogenous proteins and damaged organelles are destroyed intracellularly. Autophagy is postulated to be essential for cell homeostasis and cell remodeling during differentiation, metamorphosis, non-apoptotic cell death, and aging. Reduced levels of autophagy have been described in some malignant tumors, and a role for autophagy in controlling the unregulated cell growth linked to cancer has been proposed. This gene encodes a member of the autophagin protein family. The encoded protein is also designated as a member of the C-54 family of cysteine proteases. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. One main function of Atg4 is to cleave the pre-protein of Atg8, leading to the non-lipidated soluble (-I) form which can be processed further by Atg3, Atg7, Atg5-12 into the lipidated form (-II) anchored to the autophagic membrane.

**Immunogen:** Recombinant protein within human ATG4B aa 1-393 / 393 (Q9Y4P1).

**Positive control:** 293T cell lysate, MCF7 cell lysate, COS-1 cell lysate, PC-12 cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate, human colon cancer tissue.

**Subcellular location:** Cytoplasm, cytosol, Cytoplasmic vesicle, autophagosome, Endoplasmic reticulum, Mitochondrion.

**Database links:** SwissProt: Q9Y4P1 Human | Q8BGE6 Mouse | Q62625 Rat

**Recommended Dilutions:**

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

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

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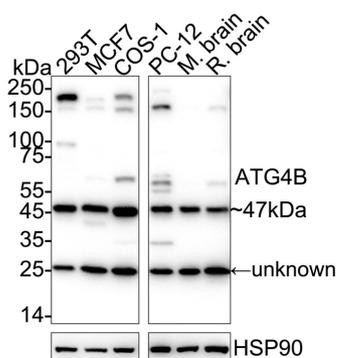
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## Images



**Fig1:** Western blot analysis of ATG4B on different lysates with Rabbit anti-ATG4B antibody (ER62759) at 1/2,000 dilution.

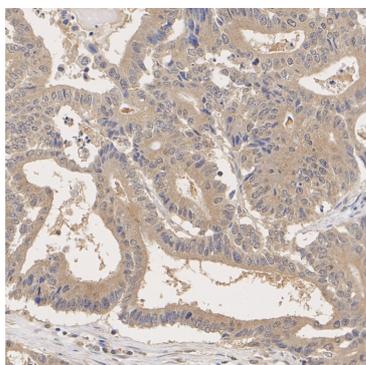
Lane 1: 293T cell lysate (20 µg/Lane)  
 Lane 2: MCF7 cell lysate (20 µg/Lane)  
 Lane 3: COS-1 cell lysate (20 µg/Lane)  
 Lane 4: PC-12 cell lysate (20 µg/Lane)  
 Lane 5: Mouse brain tissue lysate (40 µg/Lane)  
 Lane 6: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 44 kDa  
 Observed band size: 47 kDa

Exposure time: 20 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER62759) at 1/2,000 dilution was used in 5% NFDM/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:** Immunohistochemical analysis of paraffin-embedded human colon cancer tissue with Rabbit anti-ATG4B antibody (ER62759) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ER62759) at 1/1,000 dilution for 1 hour 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. Sun L et al. Deacetylation of ATG4B promotes autophagy initiation under starvation. *Sci Adv.* 2022 Aug
2. Yang G et al. Targeting Atg4B for cancer therapy: Chemical mediators. *Eur J Med Chem.* 2021 Jan

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