Anti-ATG4B Antibody [PSH02-53] - BSA and Azide free

HA750816

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Monkey
Applications:	WB
Molecular Wt:	Predicted band size: 44 kDa
Clone number:	PSH02-53

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: HeLa cell lysate, Jurkat cell lysate, 293T cell lysate, MCF7 cell lysate, K-562 cell lysate, COS-1 cell lysate, NIH/3T3 cell lysate, C2C12 cell lysate, PC-12 cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate, Mouse kidney tissue lysate, Mouse colon tissue lysate.

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

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

Recommended Dilutions:

WB	1:2,000

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

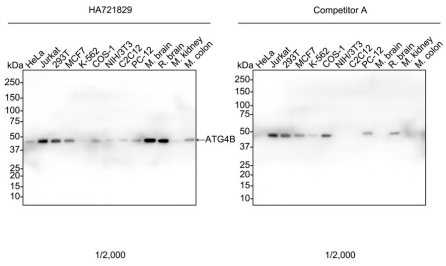

Fig1: Western blot analysis of ATG4B on different lysates with Rabbit anti-ATG4B antibody (HA750816) at 1/2,000 dilution and competitor's antibody at 1/2,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: Jurkat cell lysate
Lane 3: 293T cell lysate
Lane 4: MCF7 cell lysate
Lane 5: K-562 cell lysate
Lane 6: COS-1 cell lysate
Lane 7: NIH/3T3 cell lysate
Lane 8: C2C12 cell lysate
Lane 9: PC-12 cell lysate
Lane 10: Mouse brain tissue lysate
Lane 11: Rat brain tissue lysate
Lane 12: Mouse kidney tissue lysate
Lane 13: Mouse colon tissue lysate

Lysates/proteins at 30 µg/Lane.

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

Exposure time: 42 seconds; ECL: K1802;

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 (HA750816) at 1/2,000 dilution and competitor's antibody at 1/2,000 dilution were used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

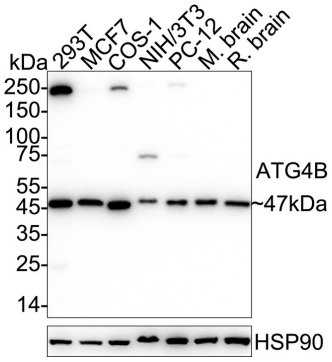

Fig2: Western blot analysis of ATG4B on different lysates with Rabbit anti-ATG4B antibody (HA750816) at 1/2,000 dilution.

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: NIH/3T3 cell lysate (20 µg/Lane)
Lane 5: PC-12 cell lysate (20 µg/Lane)
Lane 6: Mouse brain tissue lysate (40 µg/Lane)
Lane 7: 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 (HA750816) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

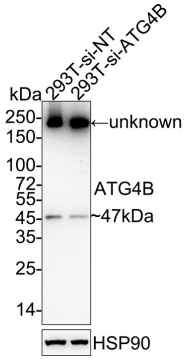

Fig3: Western blot analysis of ATG4B on different lysates with Rabbit anti-ATG4B antibody (HA750816) at 1/1,000 dilution.

Lane 1: 293T-si NT cell lysate
Lane 2: 293T-si ATG4B cell lysate

Lysates/proteins at 10 µg/Lane.

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

Exposure time: 51 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 (HA750816) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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