Anti-Nicastrin Antibody [JG68-33]

ET7108-38

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 78 kDa
Clone number:	JG68-33

Description: The Presenilin 1 (PS1) and Presenilin 2 (PS2) transmembrane proteins are components of high molecular weight complexes. These complexes mediate proteolytic cleavage within the transmembrane domain of several proteins, including the β-Amyloid precursor protein (βAPP) and Notch. Missense mutations in the genes encoding the Presenilin proteins increase the proteolysis of βAPP and results in the overproduction of the neurotoxic β-Amyloid peptide, which results in a condition associated with Familial Alzheimer's disease (FAD). A novel component of the presenilin complex, nicastrin, is a type I transmembrane glycoprotein that is involved in mediating Notch/GLP-1 signaling. In addition, nicastrin contributes to the processing of βAPP, which makes nicastrin an attractive potential target for modulating the production of β-Amyloid in patients with Alzheimer's disease. Originally purified from immunoprecipitated PS1 complexes from HEK293 cells, nicastrin contains hydrophilic amino and carboxy-terminal domains, a short, hydrophobic transmembrane domain and potential N-myristoylation and phosphorylation sites.

Immunogen: Recomninant protein within Human Nicastrin aa 5-112 / 709.

Positive control: THP-1 cell lysates, NIH/3T3 cell lysate, Neuro-2a cell lysate, Mouse brain tissue lysate.

Subcellular location: Membrane, Cytoplasmic vesicle membrane, Melanosome.

Database links: SwissProt: Q92542 Human | P57716 Mouse

Recommended Dilutions:

WB	1:1,000-1:2,000

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

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

Purity: Protein A affinity purified.

Images

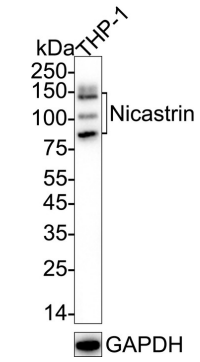


Fig1: Western blot analysis of Nicastrin on THP-1 cell lysates with Rabbit anti-Nicastrin antibody (ET7108-38) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 78 kDa
Observed band size: 78-150 kDa

Exposure time: 2 minutes; 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 (ET7108-38) 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.

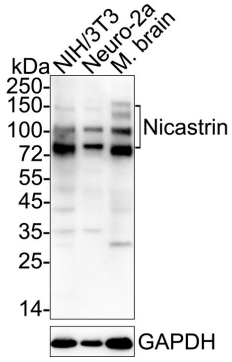


Fig2: Western blot analysis of Nicastrin on different lysates with Rabbit anti-Nicastrin antibody (ET7108-38) at 1/1,000 dilution.

Lane 1: NIH/3T3 cell lysate (20 µg/Lane)
Lane 2: Neuro-2a cell lysate (20 µg/Lane)
Lane 3: Mouse brain tissue lysate (40 µg/Lane)

Predicted band size: 78 kDa
Observed band size: 78-150 kDa

Exposure time: 1 minute; 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 (ET7108-38) 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.

Fig3: Western blot analysis of Nicastrin on different lysates with Rabbit anti-Nicastrin antibody (ET7108-38) at 1/2,000 dilution.

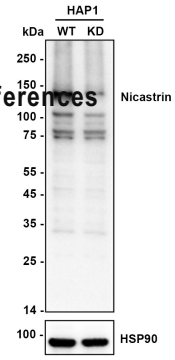
Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-Nicastrin KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 78 kDa
Observed band size: 78-150 kDa

Exposure time: 60 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 (ET7108-38) at 1/2,000 dilution was used in K1803 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. Yu G et al. Nic s presenilin-mediated notch/glp-1 signal transduction and betaAPP processing. Nature 407:48-54 (20
2. Lu P et al. Thr structure of human gamma-secretase. Nature 512:166-170 (2014).