Data Sheet (Cat.No.TMAY-01722)

TargetMol

Anti-Nicastrin Antibody (6Q347)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	6Q347
Purification:	Protein A

Applications

Verified Activity:	1. Anti-NCSTN rabbit monoclonal antibody at 1:500 dilution. -Lane A: Jurkat Whole Cell Lysate. -Lane B: A431 Whole Cell Lysate. -Lane C: 293T Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. -Developed using the Odyssey technique. -Performed under reducing conditions. -Predicted band size:78 kDa. -Observed band size:170 kDa(We are unsure as to the identity of these extra bands.) 2. NCSTN was immunoprecipitated using: -Lane A:0.5 mg Jurkat Whole Cell Lysate. -Lane B:0.5 mg 293T Whole Cell Lysate -0.5 µL anti-NCSTN rabbit monoclonal antibody and 15 µl of 50 % Protein G agarose. -Primary antibody: -Anti-NCSTN rabbit monoclonal antibody, at 1:150 dilution. -Secondary antibody: -Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution. -Developed using the odyssey technique. -Performed under reducing conditions. -Predicted band size: 78 kDa. -Observed band size: 130 kDa
Application:	IP,WB
Recommended	WB: 1:500-1:1000; IP: 0.2-1 µL/mg of lysate

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein: Human Nicastrin / NCSTN protein (TMPY-01297)

Antigen Species: Human

Synonyms: AA727311;Kiaa0253;D1Dau13e;Nct;Aph2;NCSTN;9430068N19Rik;nicastrin;mKIAA0253

Research Background

Nicastrin (NCST, or NCT), a single-pass membrane glycoprotein that harbors a large extracellular domain, is an essential component of the gamma-secretase complex. Several lines of evidence indicate that the members of these complexes could also contribute to the control of cell death. NCT controls cell death via phosphoinositide 3-kinase/Akt and p53-dependent pathways and that this function remains independent of the activity and molecular integrity of the gamma-secretase complexes. Increasing pieces of evidence have shown that Nicastrin/NCSTN plays a crucial role in gamma-cleavage of the amyloid precursor protein (APP). The glycoprotein Nicastrin is an essential component of the gamma-secretase complex, a high molecular weight complex that also contains the presenilin proteins, Aph-1 and Pen-2. The gamma-secretase complex is not only involved in APP processing but also in the processing of an increasing number of another type I integral membrane proteins. As the largest subunit of the gamma-secretase complex, Nicastrin plays a crucial role in its activation. Inhibition of NCSTN demonstrated an altered gamma-cleavage activity, suggesting its potential implication in developing Alzheimer's disease (AD). Besides, Nicastrin can function to maintain epithelial to mesenchymal transition during breast cancer progression. Anti-nicastrin polyclonal and monoclonal antibodies were able to decrease notch1 and vimentin expression and reduced the invasive capacity of breast cancer cells in vitro.