Data Sheet (Cat.No.TMAB-09472)

Anti-Nicastrin Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human (predicted:Mouse,Rat,Chicken,Pig,Cow,Horse)
Molecular Weight:	Theoretical: 75 kDa. Actual: 110 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	Sample: Lane 1: Human Jurkat cell lysates Lane 2: Human HepG2 cell lysates Lane 3: Human HeLa cell lysates Lane 4: Human HL-60 cell lysates Lane 5: Human SH-SY5Y cell lysates Primary: Anti-Nicastrin (TMAB-09472) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 75 kDa Observed band size: 110 kDa
Application:	WB
Recommended	WB: 1:500-2000

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.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human Nicastrin
Antigen Species:	Human
Gene ID:	23385
Uniprot ID:	Q92542

Research Background

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 ∫-Amyloid precursor protein (∫APP) and Notch. Missense mutations in the genes encoding the Presenilin proteins increase the proteolysis of ∫APP and results in the overproduction of the neurotoxic ∫-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 ∫APP, which makes nicastrin an attractive potential target for modulating the production of ∫-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.