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TJP3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16653a

Product Information

Application	WB, E
Primary Accession	O95049
Other Accession	NP_055243.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36213
Calculated MW	101397
Antigen Region	102-129

Additional Information

Gene ID	27134
Other Names	Tight junction protein ZO-3, Tight junction protein 3, Zona occludens protein 3, Zonula occludens protein 3, TJP3, ZO3
Target/Specificity	This TJP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 102-129 amino acids from the N-terminal region of human TJP3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TJP3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TJP3
Synonyms	ZO3
Function	TJP1, TJP2, and TJP3 are closely related scaffolding proteins that link tight

	junction (TJ) transmembrane proteins such as claudins, junctional adhesion molecules, and occludin to the actin cytoskeleton (PubMed:16129888). The tight junction acts to limit movement of substances through the paracellular space and as a boundary between the compositionally distinct apical and basolateral plasma membrane domains of epithelial and endothelial cells. Binds and recruits PATJ to tight junctions where it connects and stabilizes apical and lateral components of tight junctions (PubMed:16129888). Promotes cell-cycle progression through the sequestration of cyclin D1 (CCND1) at tight junctions during mitosis which prevents CCND1 degradation during M- phase and enables S-phase transition (PubMed:21411630). With TJP1 and TJP2, participates in the junctional retention and stability of the transcription factor DBPA, but is not involved in its shuttling to the nucleus (By similarity). Contrary to TJP2, TJP3 is dispensable for individual viability, embryonic development, epithelial differentiation, and the establishment of TJs, at least in the laboratory environment (By similarity).
Cellular Location	Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, tight junction. Nucleus. Note=Exhibits predominant nuclear expression in proliferating cells but is exclusively junctionally expressed after confluence is reached (PubMed:23608536). Shows an epithelial-specific tight junction localization in a TJP1/TJP2- dependent fashion (By similarity). {ECO:0000250|UniProtKB:Q9QXY1, ECO:0000269|PubMed:23608536}

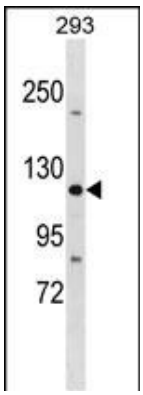
Background

TJP3 is a member of the family of membrane-associated guanylate kinase-like proteins (MAGUK) that associate with intracellular junctions (Itoh et al., 1999 [PubMed 10601346]).

References

Voss, M., et al. BMC Immunol. 10, 53 (2009) :
Grimwood, J., et al. Nature 428(6982):529-535(2004)
Roh, M.H., et al. J. Biol. Chem. 277(30):27501-27509(2002)
Kausalya, P.J., et al. FEBS Lett. 505(1):92-96(2001)
Itoh, M., et al. J. Cell Biol. 147(6):1351-1363(1999)

Images



TJP3 Antibody (N-term) (Cat. #AP16653a) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the TJP3 antibody detected the TJP3 protein (arrow).