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TJP1 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21071a

Specification

TJP1 Blocking Peptide (C-term) - Product Information

Primary Accession Q07157

TJP1 Blocking Peptide (C-term) - Additional Information

Gene ID 7082

Other Names
Tight junction protein ZO-1, Tight junction protein 1, Zona occludens protein 1, Zonula occludens protein 1, TJP1, ZO1

Target/Specificity
The synthetic peptide sequence is selected from aa 1328-1342 of HUMAN TJP1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TJP1 Blocking Peptide (C-term) - Protein Information

Name TJP1

Synonyms ZO1

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:7798316, PubMed:9792688). 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. Necessary for lumenogenesis, and particularly efficient epithelial polarization and barrier formation (By similarity). Plays a role in the regulation of cell migration by targeting CDC42BPB to the leading edge of migrating cells (PubMed:21240187). Plays an important role in podosome formation and associated function, thus regulating cell adhesion and matrix remodeling (PubMed:<a

href="http://www.uniprot.org/citations/20930113" target="_blank">20930113). With TJP2 and TJP3, participates in the junctional retention and stability of the transcription factor DBPA, but is not involved in its shuttling to the nucleus (By similarity).

Cellular Location
Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell junction, tight junction. Cell junction. Cell junction, gap junction. Cell projection, podosome. Note=Moves from the cytoplasm to the cell membrane concurrently with cell-cell contact (PubMed:7798316). At podosomal sites, is predominantly localized in the ring structure surrounding the actin core (PubMed:20930113) Colocalizes with SPEF1 at sites of cell-cell contact in intestinal epithelial cells (PubMed:31473225).

Tissue Location
The alpha-containing isoform is found in most epithelial cell junctions. The short isoform is found both in endothelial cells and the highly specialized epithelial junctions of renal glomeruli and Sertoli cells of the seminiferous tubules

TJP1 Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

TJP1 Blocking Peptide (C-term) - Images

TJP1 Blocking Peptide (C-term) - Background

The N-terminal may be involved in transducing a signal required for tight junction assembly, while the C-terminal may have specific properties of tight junctions. The alpha domain might be involved in stabilizing junctions. Plays a role in the regulation of cell migration by targeting CDC42BPB to the leading edge of migrating cells.

TJP1 Blocking Peptide (C-term) - References

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Cohen C.J.,et al.Proc. Natl. Acad. Sci. U.S.A. 98:15191-15196(2001).
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