

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Occludin in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 690213
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human Occludin Accession # Q16625
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

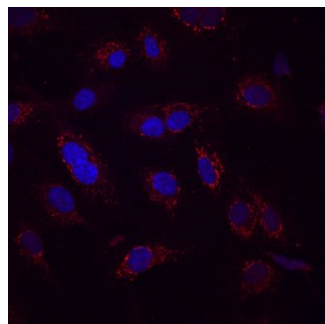
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	8-25 µg/mL	See Below

DATA

Immunocytochemistry



Occludin in HUVEC Human Cells.

Occludin was detected in immersion fixed HUVEC human umbilical vein endothelial cells using Mouse Anti-Human Occludin Monoclonal Antibody (Catalog # MAB7074) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the Northern-Lights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Occludin is an integral membrane protein with an apparent molecular mass of approximately 65 kDa. It is localized exclusively at tight junctions (TJ) of select epithelial and endothelial cells. The protein is 522 amino acids (aa) in length and contains a cytoplasmic N-terminus, four transmembrane domains, and a long COOH-terminal cytoplasmic domain (domain E) that contains 255 aa. Residues 1-66 make up the first cytoplasmic domain, and that is included in the MARVEL region consisting of aa 57-210. The MARVEL region is a membrane-associating domain that spans aa 67-243. Of note, residues 92-131 are glycine and tyrosine rich. Residues 244-265 constitute the last transmembrane region, with aa 266-522 representing the long cytoplasmic domain termed domain E. At the TJ, Occludin associates with membrane peripheral protein ZO-1 (220 kDa). Human Occludin shares 90% aa sequence identity with mouse Occludin.