

Occludin (C-19): sc-8144

BACKGROUND

Occludin is an integral membrane protein closely associated with the tight junctions of epithelial and endothelial cells. Occludin is a tetraspan integral membrane protein in epithelial and endothelial tight junction (TJ) structures that can contain two extracellular loops. The protein exists in a variety of phosphorylated forms. Phosphorylation is involved in regulating both the localization and the function of occludin. Expression of occludin is up-regulated by poly-unsaturated fatty acids, increasing transendothelial cell resistance and reducing cellular permeability to large molecules. The level of occludin varies greatly depending on tissue; in brain tissue, occludin is highly expressed at cell-cell contact sites. Non-neural tissues show lower expression and discontinuous distribution. Up-regulation of epithelial occludin may play a role in enhancing paracellular permeability and be related to the damage to the tight junction.

CHROMOSOMAL LOCATION

Genetic locus: OCLN (human) mapping to 5q13.2; OcIn (mouse) mapping to 13 D1.

SOURCE

Occludin (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Occludin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8144 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Occludin (C-19) is recommended for detection of Occludin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Occludin (C-19) is also recommended for detection of Occludin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Occludin siRNA (h): sc-36117, Occludin siRNA (m): sc-36118, Occludin shRNA Plasmid (h): sc-36117-SH, Occludin shRNA Plasmid (m): sc-36118-SH, Occludin shRNA (h) Lentiviral Particles: sc-36117-V and Occludin shRNA (m) Lentiviral Particles: sc-36118-V.

Molecular Weight of Occludin: 65-82 kDa.

Positive Controls: Occludin (h): 293T Lysate: sc-114467, ECV304 cell lysate: sc-2269 or HeLa whole cell lysate: sc-2200.

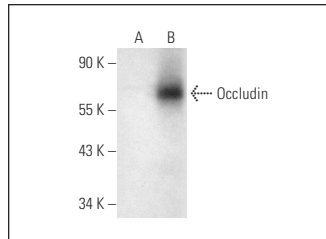
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

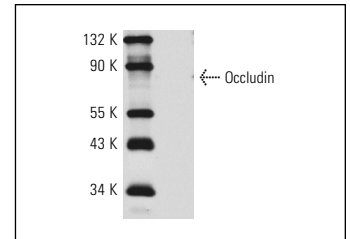
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Occludin (C-19): sc-8144. Western blot analysis of Occludin expression in non-transfected: sc-117752 (A) and human Occludin transfected: sc-114467 (B) 293T whole cell lysates.



Occludin (C-19): sc-8144. Western blot analysis of Occludin expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

- Papadopoulos, M.C., et al. 2001. Occludin expression in microvessels of neoplastic and non-neoplastic human brain. *Neuropathol. Appl. Neurobiol.* 27: 384-395.
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- Bhattacharya, R., et al. 2008. The neurotransmitter dopamine modulates vascular permeability in the endothelium. *J. Mol. Signal.* 3: 14.
- Hu, Q., et al. 2009. Therapeutic application of gene silencing MMP-9 in a middle cerebral artery occlusion-induced focal ischemia rat model. *Exp. Neurol.* 216: 35-46.
- Gye, M.C., et al. 2011. Expression of coxsackievirus and adenovirus receptor isoforms in developing mouse bladder uroepithelium. *Urology* 77: 1009.e9-1009.e18.
- Wang, J., et al. 2012. Overexpression of actin-depolymerizing factor blocks oxidized low-density lipoprotein-induced mouse brain microvascular endothelial cell barrier dysfunction. *Mol. Cell. Biochem.* 371: 1-8.
- Wu, L., et al. 2013. Bile acid-induced expression of farnesoid X receptor as the basis for superiority of internal biliary drainage in experimental biliary obstruction. *Scand. J. Gastroenterol.* 48: 496-503.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Occludin (E-5): sc-133256** or **Occludin (F-11): sc-133255**, our highly recommended monoclonal alternatives to Occludin (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Occludin (E-5): sc-133256**.