

Caveolin 1

Cat.No. 161 002; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl antiserum, lyophilized. For reconstitution add 200 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: not recommended IHC: not recommended IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 1 to 17 from rat Caveolin1 (UniProt Id: P41350)
Reactivity	Reacts with: human (Q03135), rat (P41350), mouse (P49817), dog, pig, cow, monkey. No signal: zebrafish. Other species not tested yet.
Specificity	Specific for caveolin 1.
matching control	161-0P

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Caveolae are distinct flask shaped invaginations which contain high concentrations of cholesterol and sphingolipids. These subcellular compartments can be found at the surface of many cell types. Three isoforms (**Caveolin 1, 2, 3**) have been described so far. Caveolin 1 is the major coat protein of endothelial caveolae and a knock out of this protein leads to a complete loss of these cell surface structures in various cell types. Caveolin 1 is also expressed in brain where it localizes to astrocytes, oligodendrocytes and endothelial cells but seems to be absent from neurons. Very recently a correlation of increased caveolin 1 expression in brain and Alzheimer's disease has been described.

Selected General References

Caveolin-1 upregulation in senescent neurons alters amyloid precursor protein processing. Kang MJ, Chung YH, Hwang CI, Murata M, Fujimoto T, Mook-Jung IH, Cha CI, Park WY. *Experimental & molecular medicine* (2006) 38(2): 126-33.

Increased caveolin-1 expression in Alzheimer's disease brain. Gaudreault SB, Dea D, Poirier J. *Neurobiology of aging* (2004) 25(6): 753-9.

Expression of caveolin-1 in human brain microvessels. Virgintino D, Robertson D, Errede M, Benagiano V, Tauer U, Roncali L, Bertossi M. *Neuroscience* (2002) 115(1): 145-52.

Affinity-purification and characterization of caveolins from the brain: differential expression of caveolin-1, -2, and -3 in brain endothelial and astroglial cell types. Ikezu T, Ueda H, Trapp BD, Nishiyama K, Sha JF, Volonte D, Galbiati F, Byrd AL, Bassell G, Serizawa H, Lane WS, et al. *Brain research* (1998) 804(2): 177-92.

Identification of caveolin and caveolin-related proteins in the brain. Cameron PL, Ruffin JW, Bollag R, Rasmussen H, Cameron RS. *The Journal of neuroscience : the official journal of the Society for Neuroscience* (1997) 17(24): 9520-35.

Caveolin, a protein component of caveolae membrane coats. Rothberg KG, Heuser JE, Donzell WC, Ying YS, Glenney JR, Anderson RG. *Cell* (1992) 68(4): 673-82.