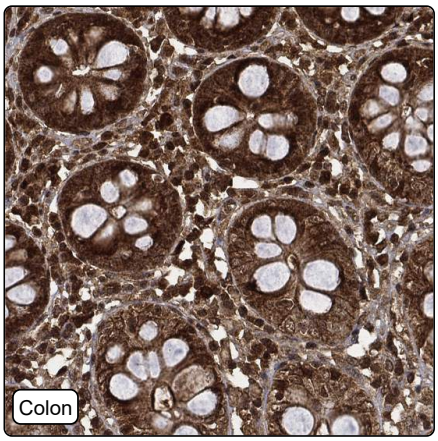
CPTC-SVIL-3 (CAB079940)

Uniprot ID: O95425
Protein name: SVIL_HUMAN
Full name: Supervillin
Tissue specificity: Expressed in many tissues. Most abundant in muscle, bone marrow, thyroid gland and salivary gland. Isoform 1 (archvillin) is muscle specific.
Function: [Isoform 1]: Forms a high-affinity link between the actin cytoskeleton and the membrane. Is among the first costameric proteins to assemble during myogenesis and it contributes to myogenic membrane structure and differentiation (PubMed:12711699). Appears to be involved in myosin II assembly. May modulate myosin II regulation through MLCK during cell spreading, an initial step in cell migration. May play a role in invadopodial function (PubMed:19109420). [Isoform 2]: May be involved in modulation of focal adhesions. Supervillin-mediated down-regulation of focal adhesions involves binding to TRIP6. Plays a role in cytokinesis through KIF14 interaction (By similarity).
Subcellular location:
Cell membrane (Topo: Peripheral membrane protein ; Orientation: Cytoplasmic side)
Cytoplasm > Cytoskeleton
Cell projection > Invadopodium
Cell projection > Podosome
Midbody (*by similarity*)
Cleavage furrow (*by similarity*)
NOTE: Tightly associated with both actin filaments and plasma membranes.
Protein existence: Experimental evidence at protein level

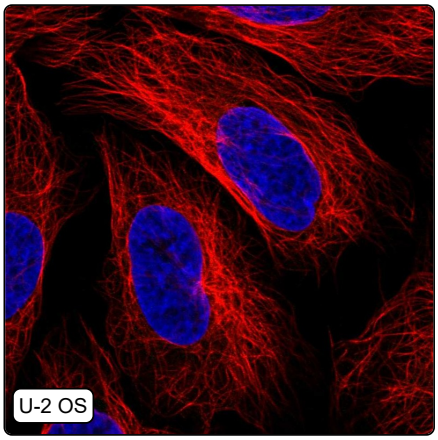
Comment:

Immunohistochemistry



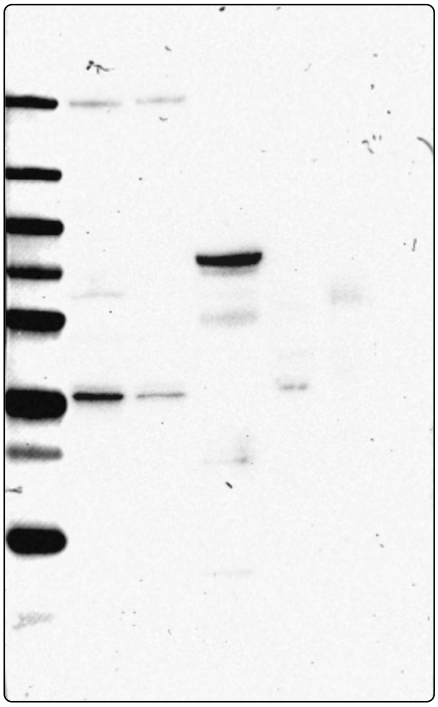
IHC protocol:	HIER pH6, Dilution 1:150
IHC test staining:	Cytoplasmic positivity in few tissues. Additional moderate positivity in immune cells.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA consistency:	Mainly not consistent with RNA expression data
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern
IHC fail comment:	ANTIBODY FAILED: Improbable histological location,Not consistent with RNA

Immunofluorescence



IF Overlay:	antibody (green), anti-tubuline (red) and DAPI (blue)
IF main location:	
IF additional location:	
IF Antibody score:	Failed IF
IF in A549:	Negative
IF in HEK 293:	Negative
IF in U-2 OS:	Negative

Western blot



WB Size markers (kDa):	250, 130, 100, 70, 55, 35, 25, 15, 10
WB Lanes:	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
WB Target weight (kDa):	108, 201, 245, 248
WB Validation:	Uncertain (Weak band of predicted size but with additional bands of higher intensity also present.)