

CPTC-SVIL-2 (CAB080403)

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)

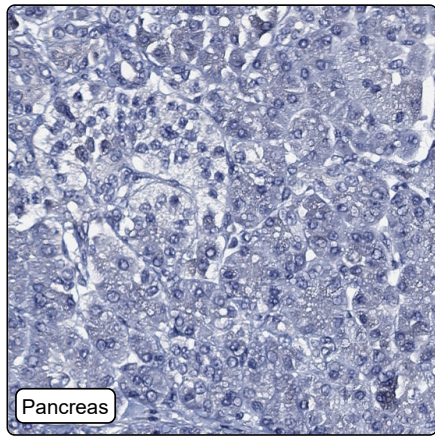
Cleavage furrow (by similarity)

NOTE: Tightly associated with both actin filaments and plasma membranes.

Protein existence: Experimental evidence at protein level

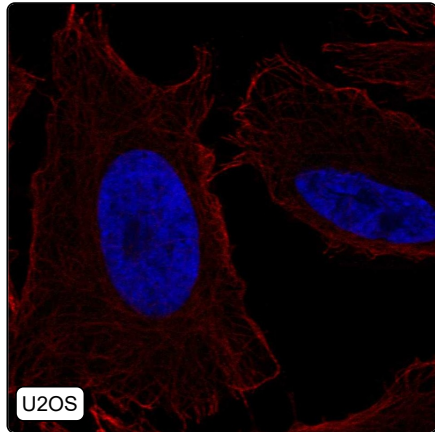
Comment: IF: negative/Charlotte

Immunohistochemistry



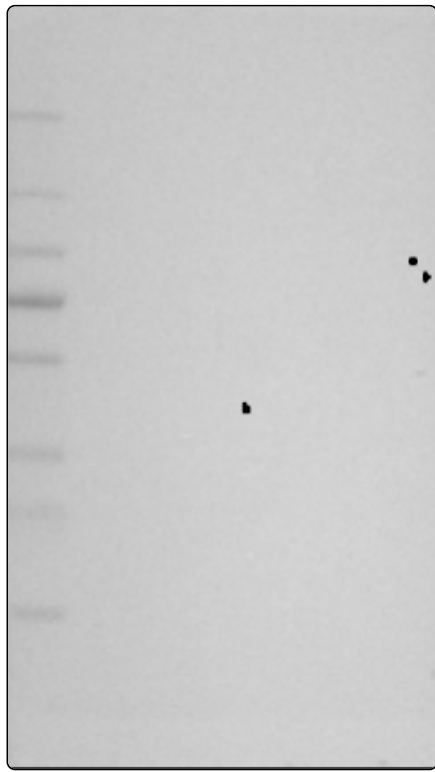
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|---------------------------------|--|
| IHC protocol: | HIER pH6, Dilution 1:500 |
| IHC test staining: | No positivity was observed. |
| Literature conformance: | Not consistent with gene/protein characterization data |
| Literature significance: | |
| RNA similarity: | Very low consistency between antibody staining and RNA expression data |
| RNA tissue specificity: | Tissue enhanced (skeletal muscle,tongue) |
| RNA tissue distribution: | Detected in all |
| IHC Sibling similarity: | Other antibody shows dissimilar IHC staining pattern |

Immunofluorescence



| | |
|--|--|
| IF Overlay: | antibody (green), anti-tubulin (red) and DAPI (blue) |
| IF main location: | |
| IF additional location: | |
| IF approved for publication on HPA: | No |
| IF in U2OS: | Negative |

Western blot



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|--------------------------------|--|
| WB Size markers (kDa): | 250, 130, 100, 70, 55, 35, 25, 15, 10 |
| WB Lanes: | Marker (1), RT-4 (2), U-251MG (3), Plasma (4), Liver (5), Tonsil (6) |
| WB Target weight (kDa): | 0, 32, 108, 201, 214, 245, 248 |
| WB Validation: | Uncertain (No bands detected.) |