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SDCBP Blocking Peptide (N-term)

Synthetic peptide

Catalog # BP20056a

Specification

SDCBP Blocking Peptide (N-term) - Product Information

Primary Accession	O00560
Other Accession	O9JI92, O08992, NP_005616.2

SDCBP Blocking Peptide (N-term) - Additional Information

Gene ID 6386

Other Names
Syntenin-1, Melanoma differentiation-associated protein 9, MDA-9, Pro-TGF-alpha cytoplasmic domain-interacting protein 18, TACIP18, Scaffold protein Pbp1, Syndecan-binding protein 1, SDCBP, MDA9, SYCL

Target/Specificity
The synthetic peptide sequence is selected from aa 7-20 of HUMAN SDCBP

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SDCBP Blocking Peptide (N-term) - Protein Information

Name SDCBP

Synonyms MDA9, SYCL

SDCBP Blocking Peptide (N-term) - Background

The protein encoded by this gene was initially identified as a molecule linking syndecan-mediated signaling to the cytoskeleton. The syntenin protein contains tandemly repeated PDZ domains that bind the cytoplasmic, C-terminal domains of a variety of transmembrane proteins. This protein may also affect cytoskeletal-membrane organization, cell adhesion, protein trafficking, and the activation of transcription factors. The protein is primarily localized to membrane-associated adherens junctions and focal adhesions but is also found at the endoplasmic reticulum and nucleus. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq].

SDCBP Blocking Peptide (N-term) - References

Boukerche, H., et al. Oncogene 29(21):3054-3066(2010)
Qian, X.L., et al. Yi Chuan 32(3):235-241(2010)
Hwangbo, C., et al. Cancer Res. 70(4):1645-1655(2010)
Beekman, J.M., et al. Blood 114(18):3917-3927(2009)
Sira, M.M., et al. Int. Immunol. 21(9):1013-1023(2009)

Function

Multifunctional adapter protein involved in diverse array of functions including trafficking of transmembrane proteins, neuro and immunomodulation, exosome biogenesis, and tumorigenesis (PubMed:26291527). Positively regulates TGFB1-mediated SMAD2/3 activation and TGFB1-induced epithelial-to-mesenchymal transition (EMT) and cell migration in various cell types. May increase TGFB1 signaling by enhancing cell-surface expression of TGFR1 by preventing the interaction between TGFR1 and CAV1 and subsequent CAV1-dependent internalization and degradation of TGFR1 (PubMed:25893292). In concert with SDC1/4 and PDCD6IP, regulates exosome biogenesis (PubMed:22660413). Regulates migration, growth, proliferation, and cell cycle progression in a variety of cancer types (PubMed:26539120). In adherens junctions may function to couple syndecans to cytoskeletal proteins or signaling components. Seems to couple transcription factor SOX4 to the IL-5 receptor (IL5RA) (PubMed:11498591). May also play a role in vesicular trafficking (PubMed:11179419). Seems to be required for the targeting of TGFA to the cell surface in the early secretory pathway (PubMed:10230395).

Cellular Location

Cell junction, focal adhesion. Cell junction, adherens junction. Cell membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein. Nucleus. Melanosome. Cytoplasm, cytosol. Cytoplasm, cytoskeleton. Secreted, extracellular exosome. Membrane raft. Note=Mainly membrane-associated Localized to adherens junctions, focal adhesions and endoplasmic reticulum.

Colocalized with actin stress fibers. Also found in the nucleus. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Associated to the plasma membrane in the presence of FZD7 and phosphatidylinositol 4,5-bisphosphate (PIP2) (PubMed:27386966).

Tissue Location
Expressed in lung cancers, including adenocarcinoma, squamous cell carcinoma and small-cell carcinoma (at protein level) (PubMed:25893292). Widely expressed. Expressed in fetal kidney, liver, lung and brain. In adult highest expression in heart and placenta.

SDCBP Blocking Peptide (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides