SANTA CRUZ BIOTECHNOLOGY, INC.

Vimentin (V9): sc-6260

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cytoskeletal intermediate filaments (IFs) constitute a diverse group of proteins that are expressed in a highly tissue-specific manner. Intermediate filaments are constructed from two-chain, α-helical, coiled-coil molecules arranged on an imperfect helical lattice and have been widely used as markers for distinguishing individual cell types within a tissue and identifying the origins of metastatic tumors. One such intermediate filament protein, Vimentin, is a general marker of cells originating in the mesenchyme. Vimentin is frequently coexpressed with other members of the intermediate filament family, such as the cytokeratins, in neoplasms including melanoma and breast carcinoma.

CHROMOSOMAL LOCATION

Genetic locus: VIM (human) mapping to 10p13; Vim (mouse) mapping to 2 A1.

SOURCE

Vimentin (V9) is a mouse monoclonal antibody raised against purified Vimentin from eye lens of porcine origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Vimentin (V9) is available conjugated to agarose (sc-6260 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6260 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-6260 PE), fluorescein (sc-6260 FITC), Alexa Fluor® 488 (sc-6260 AF488), Alexa Fluor® 546 (sc-6260 AF546), Alexa Fluor® 594 (sc-6260 AF594) or Alexa Fluor® 647 (sc-6260 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-6260 AF680) or Alexa Fluor® 790 (sc-6260 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Vimentin (V9) is available conjugated to either TRITC (sc-6260 TRITC, 200 µg/ml), PerCP (sc-6260 PerCP), PerCP-Cy5.5 (sc-6260 PCPC5) or Alexa Fluor® 405 (sc-6260 AF405), 100 tests in 2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

Vimentin (V9) is recommended for detection of Vimentin 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells). Vimentin (V9) is also recommended for detection of Vimentin in additional species, including porcine.

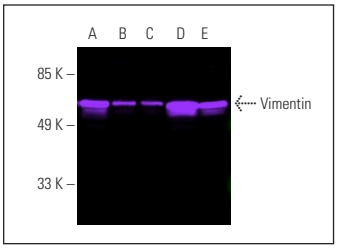
Suitable for use as control antibody for Vimentin siRNA (h): sc-29522, Vimentin siRNA (m): sc-29523, Vimentin siRNA (r): sc-156015, Vimentin shRNA Plasmid (h): sc-29522-SH, Vimentin shRNA Plasmid (m): sc-29523-SH, Vimentin shRNA Plasmid (r): sc-156015-SH, Vimentin shRNA (h) Lentiviral Particles: sc-29522-V, Vimentin shRNA (m) Lentiviral Particles: sc-29523-V and Vimentin shRNA (r) Lentiviral Particles: sc-156015-V.

Molecular Weight of Vimentin: 57 kDa.

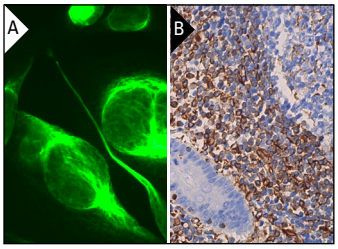
STORAGE

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

DATA



Vimentin (V9): sc-6260. Fluorescent western blot analysis of Vimentin expression in U-251-MG (**A**), Jurkat (**B**), HeLa (**C**), A-10 (**D**) and KNRK (**E**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 555: sc-516177.



Vimentin (V9) FITC: sc-6260 FITC. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoskeletal localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**A**). Vimentin (V9): sc-6260. Immunoperoxidase detection of vimentin in formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic and membrane staining of lymphoid cells and endothelial cells. Detection reagent used: m-IgGκ BP-HRP: sc-516102 (**B**).

SELECT PRODUCT CITATIONS

1. Guo, Z., et al. 1998. Relocation of the t-SNARE SNAP-23 from lamellipodia-like cell surface projections regulates compound exocytosis in mast cells. Cell 94: 537-548.
2. Reymond, A., et al. 2001. The tripartite motif family identifies cell compartments. EMBO J. 20: 2140-2151.
3. Qa'Dan, M., et al. 2002. Clostridium difficile toxin B activates dual caspase-dependent and caspase-independent apoptosis in intoxicated cells. Cell. Microbiol. 4: 425-434.
4. Kawaguchi, Y., et al. 2003. The deacetylase HDAC6 regulates aggresome formation and cell viability in response to misfolded protein stress. Cell 115: 727-738.
5. Okiyoneda, T., et al. 2004. ΔF508 CFTR pool in the endoplasmic reticulum is increased by calnexin overexpression. Mol. Biol. Cell 15: 563-574.
6. Lin, M., et al. 2018. Overexpression of FOXA1 inhibits cell proliferation and EMT of human gastric cancer AGS cells. Gene 642: 145-151.
7. Jeong, Y.J., et al. 2019. Bee venom suppresses EGF-induced epithelial-mesenchymal transition and tumor invasion in lung cancer cells. Am. J. Chin. Med. 47: 1869-1883.
8. Omar, A., et al. 2020. Soyasapogenol-A targets CARF and results in suppression of tumor growth and metastasis in p53 compromised cancer cells. Sci. Rep. 10: 6323.

RESEARCH USE

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