SANTA CRUZ BIOTECHNOLOGY, INC.

Vimentin (RV202): sc-32322

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 (RV202) is a mouse monoclonal antibody raised against cytoskeletal Vimentin extracts from lens tissue of calf 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 (RV202) is available conjugated to agarose (sc-32322 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-32322 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32322 PE), fluorescein (sc-32322 FITC), Alexa Fluor® 488 (sc-32322 AF488), Alexa Fluor® 546 (sc-32322 AF546), Alexa Fluor® 594 (sc-32322 AF594) or Alexa Fluor® 647 (sc-32322 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32322 AF680) or Alexa Fluor® 790 (sc-32322 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Vimentin (RV202) is available conjugated to PerCP-Cy5.5 (sc-32322 PCPC5), 100 tests in 2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

Vimentin (RV202) 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 (RV202) is also recommended for detection of Vimentin in additional species, including bovine.

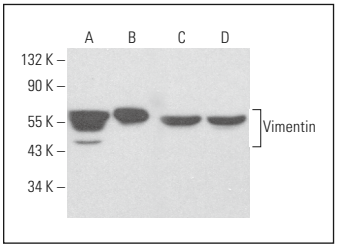
Suitable for use as control antibody for Vimentin siRNA (h): sc-29522, Vimentin siRNA (m): sc-29523, Vimentin siRNA (r): sc-156015, Vimentin shRNA Plasmid (h): sc-29522-SH, Vimentin shRNA Plasmid (m): sc-29523-SH, Vimentin shRNA Plasmid (r): sc-156015-SH, Vimentin shRNA (h) Lentiviral Particles: sc-29522-V,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

Molecular Weight of Vimentin: 57 kDa.

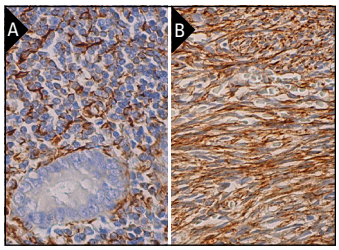
STORAGE

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

DATA



Vimentin (RV202): sc-32322. Western blot analysis of Vimentin expression in SUP-T1 (**A**), MOLT-4 (**B**), RAW 264.7 (**C**) and WEHI-231 (**D**) whole cell lysates.



Vimentin (RV202): sc-32322. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic and membrane staining of lymphoid cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic and membrane staining of ovarian stroma cells (**B**).

SELECT PRODUCT CITATIONS

1. Izmiryan, A., et al. 2006. Different expression of synemin isoforms in glia and neurons during nervous system development. Glia 54: 204-213.
2. Wang, S., et al. 2016. Targeted Pten deletion plus p53-R270H mutation in mouse mammary epithelium induces aggressive claudin-low and basal-like breast cancer. Breast Cancer Res. 18: 9.
3. Ding, S.Y., et al. 2017. Muscular dystrophy in PTFR/cavin-1 null mice. JCI Insight 2: e91023.
4. Stanley, R.L., et al. 2018. A proteomic profile of postpartum cervical repair in mice. J. Mol. Endocrinol. 60: 17-28.
5. Park, J.M., et al. 2019. USP44 Promotes the tumorigenesis of prostate cancer cells through EZH2 protein stabilization. Mol. Cells 42: 17-27.
6. Rotundo, F., et al. 2020. MiR-1272 exerts tumor-suppressive functions in prostate cancer via HIP1 suppression. Cells 9: 435.
7. Samson, J., et al. 2021. Molecular and cellular characterization of two patient-derived ductal carcinoma *in situ* (DCIS) cell lines, ETCC-006 and ETCC-010. BMC Cancer 21: 790.
8. Satow, R., et al. 2022. Downregulation of protein kinase C γ reduces epithelial property and enhances malignant phenotypes in colorectal cancer cells. iScience 25: 105501.
9. Yamakado, N., et al. 2023. Chemical inhibition of LSD1 leads to epithelial to mesenchymal transition *in vitro* of an oral squamous cell carcinoma OM-1 cell line via release from LSD1-dependent suppression of ZEB1. Biochem. Biophys. Res. Commun. 647: 23-29.

RESEARCH USE

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

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