SANTA CRUZ BIOTECHNOLOGY, INC.

# Vimentin (2Q1123): sc-73258

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 $\alpha$-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.

## REFERENCES


1. Draberova, E., et al. 1986. A common antigenic determinant of Vimentin and Desmin defined by monoclonal antibody. Folia Biol. 32: 295-303.
2. Van Muijen, G.N., et al. 1987. Coexpression of intermediate filament polypeptides in human fetal and adult tissues. Lab. Invest. 57: 359-369.
3. Lukas, Z., et al. 1989. Expression of Vimentin and glial fibrillary acidic protein in human developing spinal cord. Histochem. J. 21: 693-701.


## CHROMOSOMAL LOCATION

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

## SOURCE

Vimentin (2Q1123) 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.

## APPLICATIONS

Vimentin (2Q1123) 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 (2Q1123) 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.

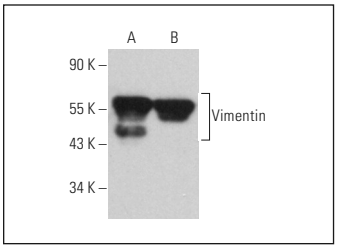
Molecular Weight of Vimentin: 57 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

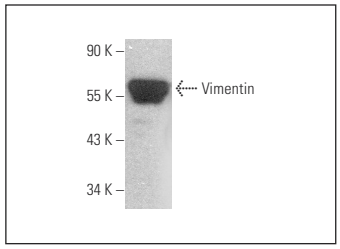
## STORAGE

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

## DATA




Vimentin (2Q1123): sc-73258. Western blot analysis of Vimentin expression in A549 (**A**) and NIH/3T3 (**B**) whole cell lysates.




Vimentin (2Q1123): sc-73258. Western blot analysis of Vimentin expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS


1. Mukherjee, A., et al. 2009. Retinoic acid-induced gene-1 (RIG-I) associates with the actin cytoskeleton via caspase activation and recruitment domain-dependent interactions. J. Biol. Chem. 135: 6486-6494.
2. Luyckx, V.A., et al. 2009. Oncostatin M pathway plays a major role in the renal acute phase response. Am. J. Physiol. Renal Physiol. 296: F875-F883.
3. Mikesh, L.M., et al. 2010. Evaluation of molecular markers of mesenchymal phenotype in melanoma. Melanoma Res. 20: 485-495.
4. Sellin, M.E., et al. 2011. Deciphering the rules governing assembly order of mammalian septin complexes. Mol. Biol. Cell 22: 3152-3164.
5. Shuda, M., et al. 2015. Merkel cell polyomavirus small T antigen induces cancer and embryonic merkel cell proliferation in a transgenic mouse model. PLoS ONE 10: e0142329.
6. Qiu, X., et al. 2017. Physical and functional interactions between ELL2 and RB in the suppression of prostate cancer cell proliferation, migration, and invasion. Neoplasia 19: 207-215.
7. Liang, R.N., et al. 2017. Ping-Chong-Jiang-Ni formula induces apoptosis and inhibits proliferation of human ectopic endometrial stromal cells in endometriosis via the activation of JNK signaling pathway. Evid. Based Complement. Alternat. Med. 2017: 6489427.


## RESEARCH USE

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

CONJUGATES

See **Vimentin (E-5): sc-373717** for Vimentin antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.