SANTA CRUZ BIOTECHNOLOGY, INC.

Vimentin (0.N.602): sc-73259

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 (0.N.602) 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 (0.N.602) 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 (0.N.602) 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 (r): sc-156015, Vimentin shRNA Plasmid (h): sc-29522-SH, Vimentin shRNA Plasmid (r): sc-156015-SH, Vimentin shRNA (h) Lentiviral Particles: sc-29522-V and Vimentin shRNA (r) Lentiviral Particles: sc-156015-V.

Molecular Weight of Vimentin: 57 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, U-251-MG whole cell lysate: sc-364176 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.

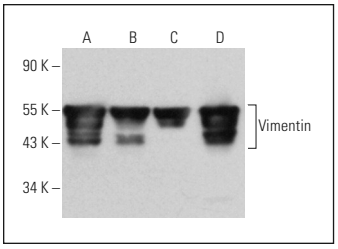
PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

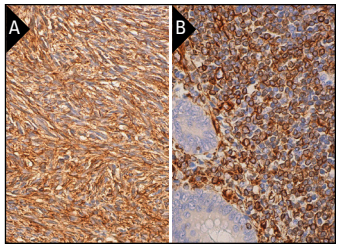
RESEARCH USE

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

DATA



Vimentin (0.N.602): sc-73259. Western blot analysis of Vimentin expression in U-251-MG (**A**), A549 (**B**), NIH/3T3 (**C**) and C6 (**D**) whole cell lysates.



Vimentin (0.N.602): sc-73259. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic and membrane staining of ovarian stroma cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic and membrane staining of lymphoid cells (**B**).

SELECT PRODUCT CITATIONS

1. Xu, T., et al. 2011. Bone morphogenetic protein-4-induced epithelial-mesenchymal transition and invasiveness through Smad1-mediated signal pathway in squamous cell carcinoma of the head and neck. Arch. Med. Res. 42: 128-137.
2. Landa-Solís, C., et al. 2013. Use of irradiated human amnion as a matrix for limbal stem cell culture. Cell Tissue Bank. 14: 77-84.
3. Will, S.E.A., et al. 2014. Correlation of histological analysis prognostics and progression the canine mammary tumors. Microscopy 6: 403-413.
4. Favaron, P.O., et al. 2014. Placentation and fetal membrane development in the South American coati, *Nasua nasua (Mammalia, Carnivora, Procyonidae)*. Reprod. Biol. Endocrinol. 12: 57.
5. Favaron, P.O., et al. 2014. Yolk sac mesenchymal progenitor cells from New World mice *(Necromys lasiurus)* with multipotent differential potential. PLoS ONE 9: e95575.
6. Mario, L.C., et al. 2016. Egg and fourth instar larvae gut of *Aedes aegypti* as a source of stem cells. Tissue Cell 48: 558-565.
7. Kokubun, K., et al. 2016. Differentiation of porcine mesenchymal stem cells into epithelial cells as a potential therapeutic application to facilitate epithelial regeneration. J. Tissue Eng. Regen. Med. 10: E73-E83.
8. Zhang, W., et al. 2016. Loss of Mrp1 potentiates doxorubicin-induced cytotoxicity in neonatal mouse cardiomyocytes and cardiac fibroblasts. Toxicol. Sci. 151: 44-56.
9. Santos, A.C., et al. 2017. Cochlear epithelial of dog fetuses: a new source of multipotent stem cells. Cytotechnology 69: 179-189.

CONJUGATES

See **Vimentin (V9): sc-6260** for Vimentin antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.