

Vimentin (3CB2): sc-80975

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.

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.

CHROMOSOMAL LOCATION

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

SOURCE

Vimentin (3CB2) is a mouse monoclonal antibody raised against Vimentin extracted from embryonic brain tissue of chicken origin.

PRODUCT

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

APPLICATIONS

Vimentin (3CB2) is recommended for detection of Vimentin of chicken, human, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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: SJRH30 cell lysate: sc-2287, U-87 MG cell lysate: sc-2411 or C2C12 whole cell lysate: sc-364188.

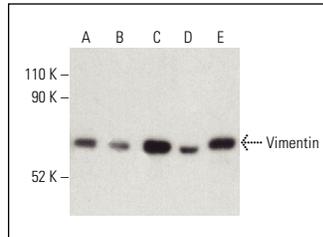
STORAGE

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

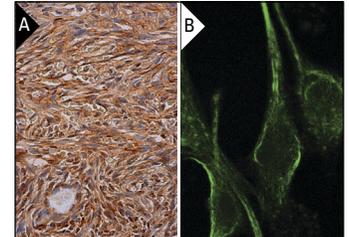
RESEARCH USE

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

DATA



Vimentin (3CB2): sc-80975. Western blot analysis of Vimentin expression in A-673 (A), SJRH30 (B), U-87 MG (C), BJ (D) and C2C12 (E) whole cell lysates. Detection reagent used: m-IgGx BP-HRP: sc-516102.



Vimentin (3CB2): sc-80975. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic and membrane staining of ovarian stroma cells (A). Immunofluorescence staining of paraformaldehyde-fixed cultured human U-87 glioma cells showing cytoskeletal localization. Kindly provided by Dr. Enrique J. de la Rosa, Consejo Superior de Investigaciones Científicas (B).

SELECT PRODUCT CITATIONS

1. Guo, B., et al. 2016. miR-194 is a negative regulator of GEF-H1 pathway in melanoma. *Oncol. Rep.* 36: 2412-2420.
2. Meng, L., et al. 2017. BAF53a is a potential prognostic biomarker and promotes invasion and epithelial-mesenchymal transition of glioma cells. *Oncol. Rep.* 38: 3327-3334.
3. Chen, S., et al. 2018. Conversion of epithelial-to-mesenchymal transition to mesenchymal-to-epithelial transition is mediated by oxygen concentration in pancreatic cancer cells. *Oncol. Lett.* 15: 7144-7152.
4. Li, Z., et al. 2019. Interference from LncRNA SPRY4-IT1 restrains the proliferation, migration, and invasion of melanoma cells through inactivating MAPK pathway by up-regulating miR-22-3p. *Int. J. Clin. Exp. Pathol.* 12: 477-487.
5. Elrashdy, R.A. 2020. Dysregulation of nuclear factor erythroid 2-related factor 2 signaling and activation of fibrogenic pathways in hearts of high fat diet-fed rats. *Mol. Biol. Rep.* 47: 2821-2834.
6. Cen, W., et al. 2021. Intrahepatic cholangiocarcinoma cells promote epithelial-mesenchymal transition of hepatocellular carcinoma cells by secreting LAMC2. *J. Cancer* 12: 3448-3457.
7. Jia, Y.Y., et al. 2021. POSTN promotes proliferation and epithelial-mesenchymal transition in renal cell carcinoma through ILK/AKT/mTOR pathway. *J. Cancer* 12: 4183-4195.
8. Gil-Ranedo, J., et al. 2021. Viral targeting of glioblastoma stem cells with patient-specific genetic and post-translational p53 deregulations. *Cell Rep.* 36: 109673.



See **Vimentin (E-5): sc-373717** for Vimentin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.