



Vimentin (1-84): sc-4707

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 co-expressed with other members of the intermediate filament family such as the cytokeratins, in neoplasms including melanoma and breast carcinoma.

REFERENCES

1. Stewart, M. 1993. Intermediate filament structure and assembly. *Curr. Opin. Cell Biol.* 5: 3-11.
2. Sjoberg, G., Jiang, W.Q., Ringertz, N.R., Lendahl, U. and Sejersen, T. 1994. Colocalization of nestin and vimentin/ desmin in skeletal muscle cells demonstrated by three-dimensional fluorescence digital imaging technology. *Exp. Cell Res.* 214(2):447-58.
3. Parry, D.A. 1995. Hard α -keratin IF: a structural model lacking a head-to-tail molecular overlap but having hybrid features characteristic of both epidermal keratin and vimentin IF. *Proteins* 22: 267-272.
4. Duprey, P. and Paulin, D. 1995. What can be learned from intermediate filament gene regulation in the mouse embryo. *Intl. J. Dev. Biol.* 39: 443-457.
5. Gereben, B., Gerics, B., Galfi, P., Rudas, P., Hajos, F. and Jancsik, V. 1995. Species-specificity of glial vimentin as revealed by immunocytochemical studies with the Vim 3B4 and V9 monoclonal antibodies. *Neurobiol.* 3: 151-164.
6. Andreoli, J.M. and Trevor, K.T. 1995. Structural and biological consequences of increased vimentin expression in simple epithelial cell types. *Cell Motil. Cytoskel.* 32: 10-25.
7. Seshadri, R., Raymond, W.A., Leong, A.S., Horsfall, D.J. and McCaul, K. 1996. Vimentin expression is not associated with poor prognosis in breast cancer. *Intl. J. Cancer* 67: 353-356.
8. Essa, T.M., el Tawati, F.A., Hamdi, K.N. and Arafa, W.A. 1996. Vimentin expression in different types of breast carcinoma immunohistochemical study. *J. Egyptian Soc. Parasitol.* 26: 433-442.
9. Chu, Y.W., Seftor, E.A., Romer, L.H. and Hendrix, M.J. 1996. Experimental coexpression of vimentin and keratin intermediate filaments in human melanoma cells augments motility. *Amer. J. Pathol.* 148: 63-69.

CHROMOSOMAL LOCATION

Genetic locus: VIM (human) mapping to 10p13; Vim (mouse) mapping to 2 A2.

SOURCE

Vimentin (1-84) is expressed in *E. coli* as a 36 kDa tagged fusion protein corresponding to amino acids 1-84 of vimentin of human origin.

PRODUCT

Vimentin (1-84) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 50 μ g purified protein in PBS containing 5 mM DTT and 50% glycerol.

APPLICATIONS

Vimentin (1-84) is suitable as a substrate for PKC α : sc-4820 and as a Western blotting control for sc-5565.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

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

PROTOCOLS

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