

Product Information

Anti-Vimentin antibody, Mouse monoclonal
clone LN-6, purified from hybridoma cell culture

Product Number **SAB4200761**

Product Description

Anti-Vimentin antibody, Mouse monoclonal (mouse IgM isotype) is derived from the LN-6 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from mouse immunized with human thymic nuclear extract.¹ The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Anti-Vimentin antibody, Mouse monoclonal specifically recognizes a unique epitope of Vimentin protein which is not expressed in cells of hematopoietic derivation.¹ The antibody is reactive with benign and malignant tumors of mesenchymal and neural derivation but does not react with normal and malignant human lymphoid cells or derived malignancies.¹ The antibody reacts with Vimentin from human, hamster, mouse², rat³, canine⁴, monkey⁵⁻⁶, bovine⁷ porcine⁷ and rabbit⁸ origin. The antibody may be used in various immunochemical techniques including Immunoblotting (~58 kDa)³, Immunofluorescence, Flow Cytometry (FACS)⁵, Immunoprecipitation¹ and Immunohistochemistry².

Vimentin is a type III intermediate filaments (IF) expressed in a wide range of cell types, including pancreatic precursor cells, sertoli cells, neuronal precursor cells, trophoblastic giant cells, fibroblasts, endothelial cells of lung blood vessels, renal tubular cells, macrophages, neutrophils, mesangial cells, leukocytes and renal stromal cells.⁹ Vimentin plays a significant role in supporting and anchoring the cellular position of organelles such as nucleus, endoplasmic reticulum, mitochondria (either laterally or terminally), maintenance of cell shape, endurance of mechanical stress of mesenchymal cells and motility.¹⁰ Increased Vimentin expression has been reported in various epithelial cancers, including prostate, gastrointestinal tumors, CNS tumors, breast, malignant melanoma and lung cancer.⁹⁻¹¹

Anti-Vimentin antibody, Mouse monoclonal may be useful to delineate tumors of mesenchymal origin and thus to distinguish tumors and metastatic lesions derived from sarcomas, lymphomas and melanomas.¹

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.25-0.5 µg/ml is recommended using human foreskin fibroblast Hs68 cell line.

Immunofluorescence: a working concentration of 1-2 µg/ml is recommended using human foreskin fibroblast Hs68 cell line.

Immunohistochemistry: a working concentration of 5-10 µg/ml is recommended using human breast carcinoma sections.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Stathopoulos E., et al., *J Histochem Cytochem.*, **37**, 1363-70 (1989).
2. Nishio M., et al., *Proc Natl Acad Sci U S A*, **113**, E71-80 (2016).

3. Smith KA., et al., *Sci Rep.*, **5**, 18233 (2015).
4. Shukla P., et al., *BMC Genomics*, **16**, 944 (2015).
5. Foret MR., *Front Genet.*, **5**, 252 (2014).
6. Sandstrom RS., et al., *Sci Rep.*, **4**, 5371 (2014).
7. Gilson A., et al., *Arthritis Res Ther.*, **12**, R24 (2010).
8. Dai D., et al., *AJNR Am J Neuroradiol.*, **26**, 2560-8 (2005).
9. Satelli A and Shulin L., *Cell Mol Life Sci.*, **68**, 3033-46 (2011).
10. Challa AA and Stefanovic B., *Mol Cell Biol.*, **31**, 3773-89 (2011).
11. Dave JM and Bayless KJ., *Microcirculation*, **21**, 333-44 (2014).

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