

Product Information

Anti-Vimentin antibody, Mouse monoclonal Clone V9

purified from hybridoma cell culture

Catalog Number **V6389**

Product Description

Monoclonal Anti-Vimentin (mouse IgG1 isotype) is derived from the V9 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with vimentin purified from pig eye lens. The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-Vimentin recognizes human,^{1,2} monkey,³ pig, rat, and chicken⁵ vimentin. The antibody may be used in immunoblotting (~58 kDa),^{1,2} immunocytochemistry,³ immunohistochemistry,⁴ and flow cytometry.²

Monoclonal Anti-Vimentin may be used for the immunocytochemical localization of vimentin in normal and pathological tissue of mesenchymal origin, as well as for immunofluorescent labeling of cultured mammalian cells. The antibody localizes vimentin in fibroblasts, endothelial cells, lymphoid tissue, and melanocytes. The antibody stains tumors derived from these cells including sarcomas, lymphomas, melanomas, and their metastatic lesions.

Vimentin is one of the five major groups of intermediate filaments with a molecular mass of 58 kDa. Intermediate filaments (IFs) with characteristic 10 nm diameter are a distinct class of molecularly heterogeneous cytoskeletal filaments defined by ultrastructural, immunological, and biochemical criteria. IFs differ significantly from the other cytoskeletal elements of the cell, namely microtubules and microfilaments, and are components of most eukaryotic cells. Although vimentin was found to be important for stabilizing the architecture of the cytoplasm, it was found that activated macrophages secrete vimentin into the extracellular space *in vitro*.⁶

Mice that have a null mutation of the vimentin gene developed and reproduced without an obvious deviant phenotype. It was shown that in these mice there is no expression of vimentin and of the corresponding filament network. Furthermore, no compensatory expression of another intermediate filament was demonstrated. Thus, vimentin may be expressed in unusual situations or pathologic conditions.⁷

Reagent

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

Antibody concentration: ~1 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the 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, or storage in “frost-free” freezers, 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 0.1–0.2 µg/mL is recommended using human fibroblasts HS-68.

Immunohistochemistry: a working concentration of 25–50 µg/mL is recommended using formalin-fixed, paraffin-embedded sections of human tissue.

Note: In order to obtain the best results in different techniques and preparations, it is recommended to determine the optimal working concentration by titration test.

References

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