

Product datasheet for **SM3129APC**

Vimentin (VIM) Mouse Monoclonal Antibody [Clone ID: VI-RE/1]

Product data:

| | |
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| Product Type: | Primary Antibodies |
| Clone Name: | VI-RE/1 |
| Applications: | FC |
| Recommended Dilution: | Flow cytometry. |
| Reactivity: | Human |
| Host: | Mouse |
| Isotype: | IgG1 |
| Clonality: | Monoclonal |
| Immunogen: | Bacterially expressed full-length human vimentin |
| Specificity: | This antibody reacts with human vimentin, a 57 kDa intermediate filament protein expressed on a wide variety of mesenchymal and mesodermal cell types. |
| Formulation: | PBS, 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) Label: APC State: Liquid Ig fraction Preservative: 15 mM sodium azide Label: The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography. |
| Concentration: | lot specific |
| Conjugation: | APC |
| Storage: | Store undiluted at 2-8°C. DO NOT FREEZE! This products is photosensitive and should be protected from light. |
| Stability: | Shelf life: one year from despatch. |
| Gene Name: | vimentin |
| Database Link: | Entrez Gene 7431 Human P08670 |



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Background:

Vimentin (57 kDa) is the most ubiquitous intermediate filament protein and the first to be expressed during cell differentiation. All primitive cell types express vimentin but in most non-mesenchymal cells it is replaced by other intermediate filament proteins during differentiation. Vimentin is expressed in a wide variety of mesenchymal cell types - fibroblasts, endothelial cells etc., and in a number of other cell types derived from mesoderm, e.g., mesothelium and ovarian granulosa cells. In non-vascular smooth muscle cells and striated muscle, vimentin is often replaced by desmin, however, during regeneration, vimentin is reexpressed. Cells of the lympho-haemopoietic system (lymphocytes, macrophages etc.) also express vimentin, sometimes in scarce amounts. Vimentin is also found in mesoderm derived epithelia, e.g. kidney (Bowman capsule), endometrium and ovary (surface epithelium), in myoepithelial cells (breast, salivary and sweat glands), and in thyroid gland epithelium. In these cell types, as in mesothelial cells, vimentin is coexpressed with cytokeratin.

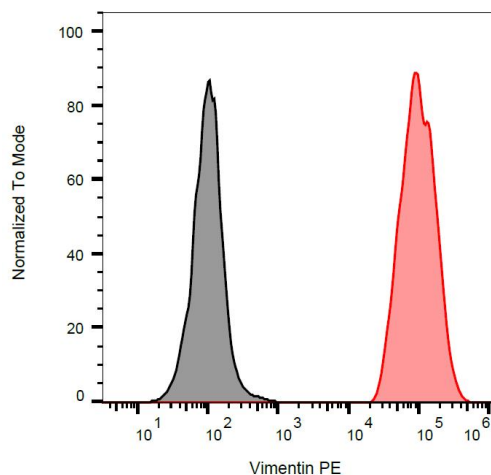
Furthermore, vimentin is detected in many cells from the neural crest. Particularly melanocytes express abundant vimentin. In glial cells vimentin is coexpressed with glial filament acidic protein (GFAP).

Vimentin is present in many different neoplasms but is particularly expressed in those originated from mesenchymal cells. Sarcomas e.g., fibrosarcoma, malignant fibrous histiocytoma, angiosarcoma, and leiomyosarcoma, as well as lymphomas, malignant melanoma and schwannoma, are virtually always vimentin positive. Mesoderm derived carcinomas like renal cell carcinoma, adrenal cortical carcinoma and adenocarcinomas from endometrium and ovary usually express vimentin. Also thyroid carcinomas are vimentin positive. Any low differentiated carcinoma may express some vimentin.

Vimentin is frequently included in the so-called primary panel (together with CD45, cytokeratin, and S-100 protein). Intense staining reaction for vimentin without coexpression of other intermediate filament proteins is strongly suggestive of a mesenchymal tumour or malignant melanoma.

Synonyms:

VIM

Product images:

Intracellular flow cytometry analysis of vimentin expression in ESS-1 cells using anti-human vimentin (VI-RE/1) APC.