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30-2221: PE Conjugated Anti-Vimentin Monoclonal Antibody (Clone:VI-RE/1)

Clonality :	Monoclonal
Clone Name :	VI-RE/1
Application :	FACS
Reactivity :	Human
Conjugate :	PE
Gene :	VIM
Gene ID :	7431
Uniprot ID :	P08670
Alternative Name :	VIM
Isotype :	Mouse IgG1
Immunogen Information :	Bacterially expressed full-length human vimentin

Description

Vimentin (57 kDa) is the most ubiquituos 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 cellsand striated muscle, vimentin is often replaced by desmin, however, during regeneration, vimentin is reexpressed. Cells of the lymfo-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), an 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 particulary expressed in those originated from mesenchymal cells. Sarcomas e.g., fibrosarcoma, malignt fibrous histiocytoma, angiosarcoma, and leio- and rhabdomyosarcoma, 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.

Product Info

Amount :	0.1 mg
Storage condition :	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light.

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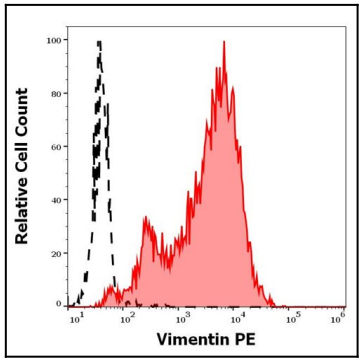

Figure 1: Separation of ESS-1 cells (red-filled) from human neutrophil granulocytes (black-dashed) in flow cytometry analysis (intracellular staining) of human peripheral whole blood spiked with ESS-1 cells stained using anti-Vimentin (VI-RE/1) PE antibody (concentration in sample 0.56 µg/ml).

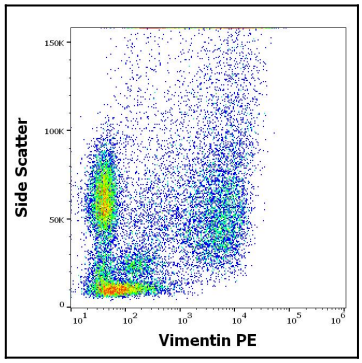

Figure 2: Flow cytometry intracellular staining pattern of human peripheral whole blood spiked with ESS-1 cells stained using anti-Vimentin (VI-RE/1) PE antibody (concentration in sample 0.56 µg/ml).