OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

SM3129APC Monoclonal Antibody to Vimentin - APC

Alternate names:	VIM
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	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.
Uniprot ID:	P08670
NCBI:	NP_003371.2
GeneID:	7431
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10APC (for use in human samples)
Clone:	VI-RE/1

Immunogen: Bacterially expressed full-length human vimentin

Format:
State: Liquid Ig fraction
Buffer System: PBS, 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA)
Preservatives: 15 mM sodium azide
Label: APC – The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography.

Applications:
Flow cytometry.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody reacts with human vimentin, a 57 kDa intermediate filament protein expressed on a wide variety of mesenchymal and mesodermal cell types.

Species Reactivity: **Tested:** Human. Does not react with Porcine and Mouse.

Storage:
Store undiluted at 2-8°C.
DO NOT FREEZE!
This products is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General Readings:
1. Chen YK, Chang WS, Wu IC, Li LH, Yang SF, Chen JY, et al. Molecular characterization of invasive subpopulations from an esophageal squamous cell carcinoma cell line. Anticancer Res. 2010 Mar;30(3):727-36. PubMed PMID: 20392990.

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