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Datasheet for ABIN94494
anti-Vimentin antibody

4 Images

1 Publication

Overview

Quantity:	0.1 mg
Target:	Vimentin (VIM)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Vimentin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC)

Product Details

Immunogen:	Bacterially expressed full-length human vimentin
Clone:	VI-RE-1
Isotype:	IgG1
Specificity:	The antibody VI-RE/1 reacts with human vimentin, a 57 kDa intermediate filament intracellular protein expressed on a wide variety of mesenchymal and mesodermal cell types.
No Cross-Reactivity:	Mouse, Pig
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

Target Details

Target: Vimentin (VIM)

Alternative Name: Vimentin ([VIM Products](#))

Background: Vimentin, 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 Fibrillary 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.

Gene ID: 7431

UniProt: [P08670](#)

Pathways: [Caspase Cascade in Apoptosis](#)

Application Details

Application Notes: ELISA: The antibody VI-RE/1 recognizes different epitope on human vimentin than the antibody VI-01 (IgM).

Application Details

Flow cytometry: Recommended dilution: 1-4 µg/mL. Intracellular staining.

Western blotting: Recommended dilution: 1-2 µg/mL.

Immunocytochemistry: Recommended dilution: 5-10 µg/mL.

Restrictions: For Research Use only

Handling

Concentration: 1 mg/mL

Buffer: Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: **Do not freeze.**

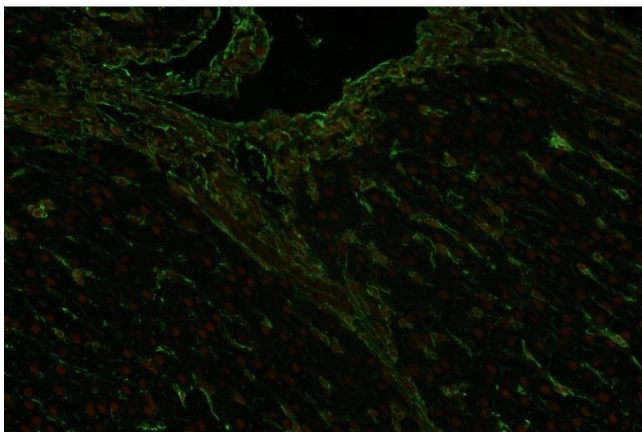
Storage: 4 °C

Storage Comment: Store at 2-8°C. Do not freeze.

Publications

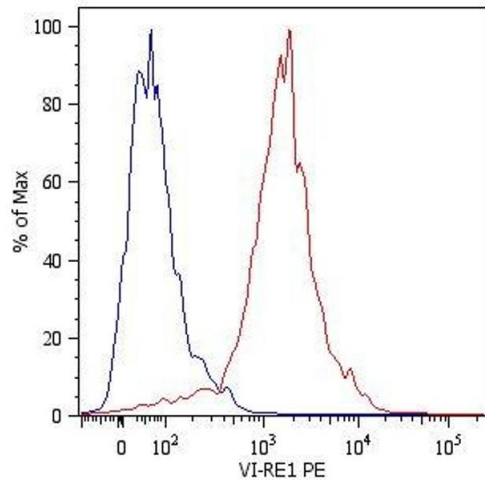
Product cited in: Chen, Chang, Wu, Li, Yang, Chen, Hsu, Chen, Wu, Lee, Huang, Goan, Chou, Huang, Wu: "Molecular characterization of invasive subpopulations from an esophageal squamous cell carcinoma cell line." in: **Anticancer research**, Vol. 30, Issue 3, pp. 727-36, (2010) ([PubMed](#)).

Images



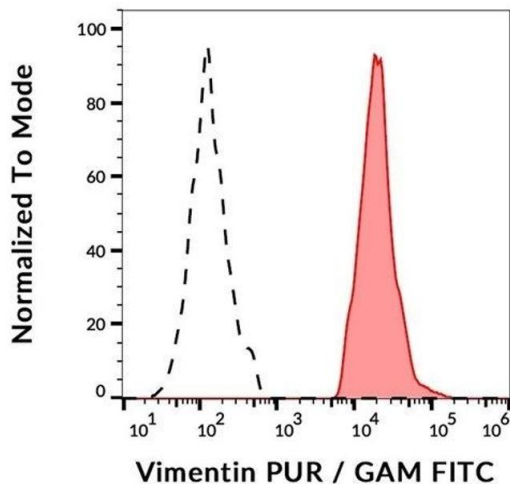
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry staining (paraffin sections) of vimentin in human liver using mouse monoclonal antibody VI-RE/1 ((ABIN94494), diluted 1:400), detected with GAM IgG-Alexa Fluor488 (diluted 1:200, green), cell nuclei stained with PI (1 µg/mL, orange).



Flow Cytometry

Image 2. Intracellular Flow Cytometry analysis Intracellular flow cytometry analysis of Vimentin expression in LEP-19 human fibroblast cell line using anti-human Vimentin (VI-RE/1) PE. Overlay with Isotype mouse IgG1 control (PPV-06



Flow Cytometry

Image 3. Intracellular flow cytometry analysis of vimentin expression in ESS-1 cells using anti-human vimentin (VI-RE/1) purified, GAM-FITC. Negative control: human lymphocytes.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN94494.