

Anti-Vimentin antibody [VI-RE/1] ab3974

★★★★☆ [3 Abreviews](#) [4 References](#) [6 图像](#)

概述

产品名称	Anti-Vimentin抗体[VI-RE/1]
描述	小鼠单克隆抗体[VI-RE/1] to Vimentin
宿主	Mouse
特异性	The antibody VI-RE/1 reacts with human vimentin, a 57 kDa intermediate filament protein expressed on a wide variety of mesenchymal and mesodermal cell types.
经测试应用	适用于: Flow Cyt (Intra), ICC/IF, WB, IHC-P
种属反应性	与反应: Human 预测可用于: Rat  不与反应: Mouse, Pig
免疫原	Recombinant full length protein corresponding to Human Vimentin aa 1 to the C-terminus. Database link: P08670
阳性对照	ICC: HeLa cells. IHC-P: Human bladder and liver tissue. Flow Cyt (Intra): Human ESS-1 and HeLa cells. WB: HeLa whole cell lysate.
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
纯度	Protein A purified
纯化说明	Purified from hybridoma culture supernatant. Purity >95% by SDS-PAGE.

克隆	单克隆
克隆编号	VI-RE/1
同种型	IgG1

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab3974于以下的经测试应用

“应用说明”部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Flow Cyt (Intra)		Use a concentration of 1 - 4 µg/ml. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ICC/IF		Use a concentration of 5 - 10 µg/ml.
WB		Use a concentration of 1 - 2 µg/ml. Use under non reducing condition. Detects a band of approximately 57 kDa. Positive control: LEP-19 cell lysate Negative control: 3T3 mouse cell line Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% laurylmaltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell
IHC-P	★ ★ ★ ★ ★ (1)	1/400.

靶标

功能	Vimentins are class-III intermediate filaments found in various non-epithelial cells, especially mesenchymal cells. Vimentin is attached to the nucleus, endoplasmic reticulum, and mitochondria, either laterally or terminally. Involved with LARP6 in the stabilization of type I collagen mRNAs for CO1A1 and CO1A2.
组织特异性	Highly expressed in fibroblasts, some expression in T- and B-lymphocytes, and little or no expression in Burkitt's lymphoma cell lines. Expressed in many hormone-independent mammary carcinoma cell lines.
疾病相关	Cataract 30
序列相似性	Belongs to the intermediate filament family.
结构域	The central alpha-helical coiled-coil rod region mediates elementary homodimerization. The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the iNOS-S100A8/A9 transnitrosylase complex.
翻译后修饰	Filament disassembly during mitosis is promoted by phosphorylation at Ser-55 as well as by nestin (By similarity). One of the most prominent phosphoproteins in various cells of mesenchymal origin. Phosphorylation is enhanced during cell division, at which time vimentin filaments are significantly reorganized. Phosphorylation by PKN1 inhibits the formation of filaments. Phosphorylated at Ser-56 by CDK5 during neutrophil secretion in the cytoplasm. Phosphorylated by STK33. O-glycosylated during cytokinesis at sites identical or close to phosphorylation sites, this

interferes with the phosphorylation status.

S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-density lipoprotein (LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.

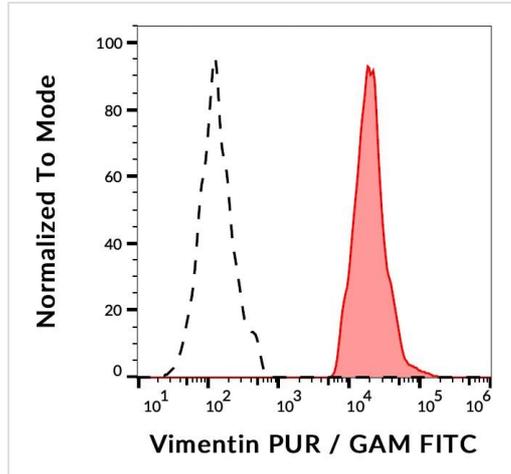
细胞定位

Cytoplasm.

形式

Vimentin is found in connective tissue and in the cytoskeleton.

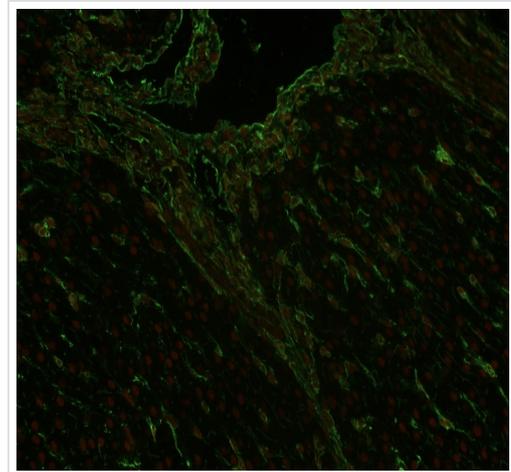
图片



Flow cytometry (Intracellular) analysis ESS-1 (human endometrial stromal sarcoma cell line) cells labeling Vimentin with ab3974 (GAM-FITC).

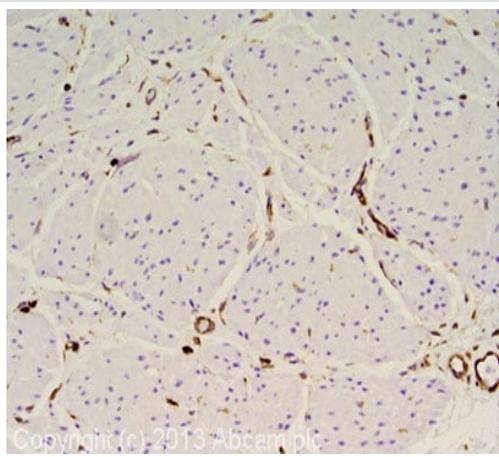
Negative control: human lymphocytes.

Flow Cytometry (Intracellular) - Anti-Vimentin antibody [VI-RE/1] (ab3974)



Immunohistochemistry staining (paraffin sections) of Vimentin in human liver using mouse monoclonal antibody [VI-RE/1] (ab3974, diluted 1/400), detected with GAM IgG-Alexa Fluor®488 (diluted 1/200; green), cell nuclei stained with PI (1 µg/ml; orange).

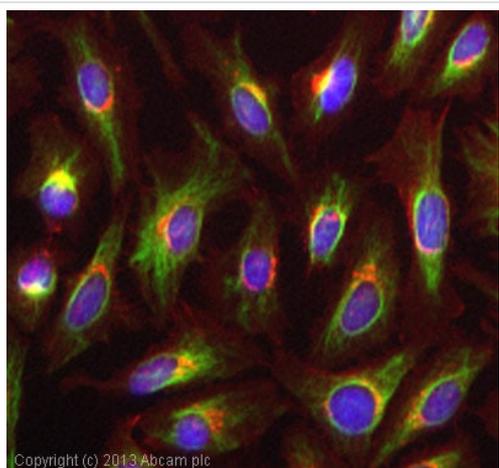
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [VI-RE/1] (ab3974)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Vimentin antibody [VI-RE/1] (ab3974)

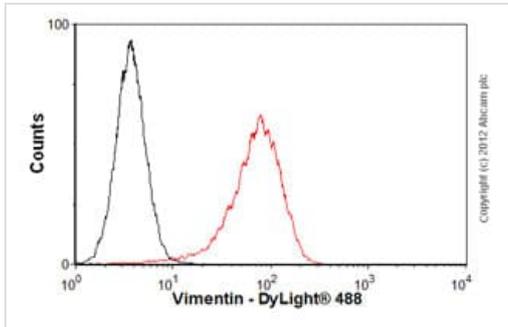
IHC image of Vimentin staining in human bladder formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab3974, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-Vimentin antibody [VI-RE/1] (ab3974)

ICC image of ab3974 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab3974, 5µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Flow Cytometry (Intracellular) - Anti-Vimentin antibody [VI-RE/1] (ab3974)

Flow Cytometry (Intracellular) analysis of HeLa cells labeling Vimentin with ab3974 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab3974, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-Vimentin antibody [VI-RE/1] (ab3974)

Anti-Vimentin antibody [VI-RE/1] (ab3974) at 5 µg/ml + HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate at 10 µg

Secondary

Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Observed band size: 57 kDa

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