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Product datasheet for BM5501F

Vimentin (VIM) Mouse Monoclonal Antibody [Clone ID: VIM 3B4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	VIM 3B4
Applications:	ELISA, FC, IF, IHC, WB
Recommended Dilution:	**ELISA.** **Immunoblotting.** **Flow Cytometry.** **Immunofluorescence Microscopy** (5-10 µg/ml recommended) **Immunohistochemistry** (Dilute at least 1/10 with PBS, pH 7.4). Suitable for Frozen and Paraffin-Embedded tissue and Cytological Material. With paraffin-embedded sections, protease pretreatment is required prior to antibody application. *Incubation Time:* 1 h at RT; extended with paraffin.
Reactivity:	Amphibian, Bovine, Canine, Chicken, Human, Monkey
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Vimentin (purified from Bovine lens)
Specificity:	This antibody is highly specific for the intermediate filament protein Vimentin. **Polypeptide reacting:** Mr 57 000 intermediate filament protein (Vimentin) of mesenchymal cells. The binding region of monoclonal antibody *VIM3B4* has been characterized by *Bohn et al.* (1992). According to these authors, the epitope has been localized on the alpha-helical part of Vimentin (rod domain coil 2). Due to an aa substitution at position of aa 353 in murine Vimentin (that could explain for the weak cross-reaction of the antibody with murine Vimentin) they were able to narrow down the binding region around position 353. These findings were confirmed by truncation mutagenesis experiments using Human Vimentin (*Rogers et al.*, 1995). Clone VIM 3B4 has turned out to be the most avid mab to Vimentin. **Tumors Specifically Detected:** Sarcoma (including myosarcoma), lymphoma, melanoma. **Tested Reactivities on Cultured Cell Lines**: RD cells, glioma cells, fibroblasts (SV-80), MDCK.

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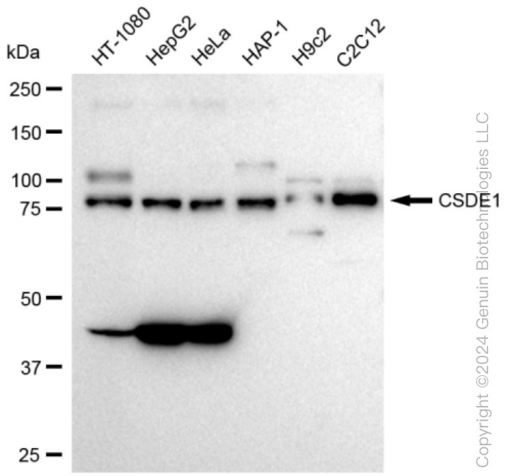
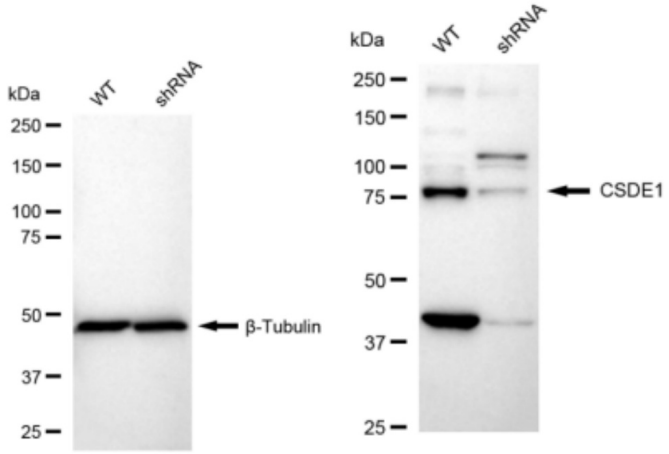
Formulation:	Liquid purified Ig fraction with 0.09% Sodium Azide Label: Fluorescein Isothiocyanate Isomer 1 (FITC)
Purification:	Affinity Chromatography on Protein A
Conjugation:	FITC
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	vimentin
Database Link:	Entrez Gene 7431 Human P08670
Background:	Vimentin is an intermediate filament protein which is present in all cells of mesenchymal origin. Vimentin is the major subunit protein of the intermediate filaments of mesenchymal cells. It is believed to be involved with the intracellular transport of proteins between the nucleus and plasma membrane. Vimentin has been implicated to be involved in the rate of steroid synthesis via its role as a storage network for steroidogenic cholesterol containing lipid droplets. Vimentin phosphorylation by a protein kinase causes the breakdown of intermediate filaments and activation of an ATP and myosin light chain dependent contractile event. This results in cytoskeletal changes that facilitate the interaction of the lipid droplets within mitochondria, and subsequent transport of cholesterol to the organelles leading to an increase in steroid synthesis. Immunohistochemical staining for Vimentin is characteristic of sarcomas (of neural, muscle and fibroblast origin) compared to carcinomas which are generally negative. Melanomas, lymphomas and vascular tumors may all stain for Vimentin. Vimentin antibodies are thus of value in the differential diagnosis of undifferentiated neoplasms and malignant tumors. They are generally used with a panel of other antibodies including those recognizing cytokeratins, lymphoid markers, S100, desmin and neurofilaments.
Synonyms:	VIM

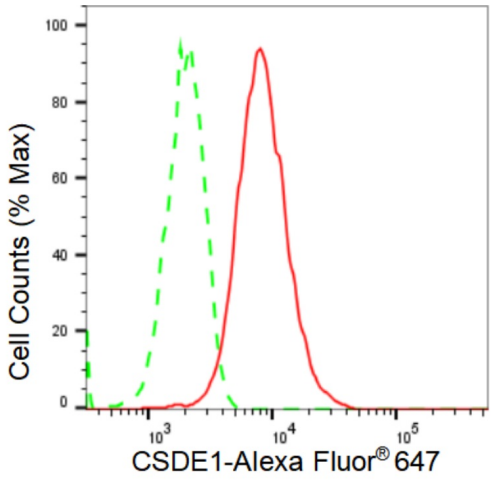
Product images:



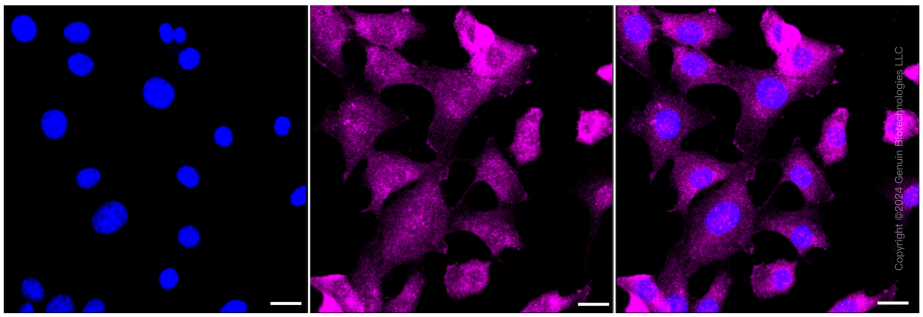
Western blotting analysis using anti-CSDE1 antibody . Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-CSDE1 antibody and HRP-conjugated goat anti-rabbit secondary antibody respectively. Image was developed using anti-FeQ™ ECL Substrate Kit .



Western blotting analysis using anti-CSDE1 antibody . CSDE1 expression in wild type (WT) and CSDE1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-CSDE1 antibody and HRP-conjugated goat anti-rabbit secondary antibody respectively. Image was developed using anti-FeQ™ ECL Substrate Kit .



Flow cytometric analysis of CSDE1 expression in C2C12 cells using anti-CSDE1 antibody . Green, isotype control; red, CSDE1.



Immunocytochemical staining of C2C12 cells with CSDE1 antibody . Nuclei were stained blue with DAPI; CSDE1 was stained magenta with Alexa Fluor® 647. Images were taken using anti-Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.