

Product datasheet

anti-Vimentin mouse monoclonal, VIM 3B4, prediluted, purified

Short overview

Cat. No.	65013
Quantity	5 ml

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG2a
Clone	VIM 3B4
Immunogen	Vimentin purified from bovine lens
Formulation	PBS pH 7.4 with 0.5% BSA and 0.09% sodium azide
UniprotID	P48616 (Bovine), P09654 (Chicken), F1PLS4 (Dog, Canis familiaris), P08670 (Human)
Synonym	Vimentin, VIM
Conjugate	Unconjugated
Purification	Affinity chromatography
Storage	Short term at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	ELISA, ICC, IHC, WB
Reactivity	Amphibia, Bovine, Chicken, Dog, Human, Monkey

Applications

ELISA	Assay dependent
Immunocytochemistry (ICC)	Assay dependent
Immunohistochemistry (IHC) - frozen	Ready-to-use
Immunohistochemistry (IHC) - paraffin	Ready-to-use (protease treatment and/or microwave treatment recommended)
Western Blot (WB)	Assay dependent

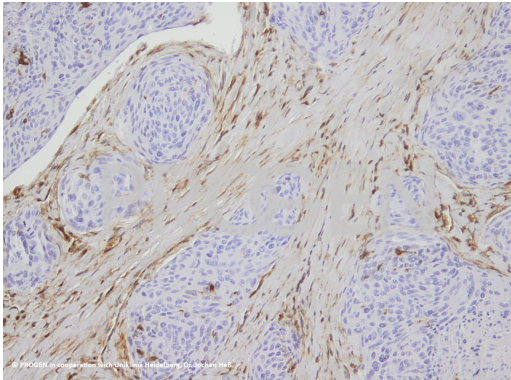
Background

The antibody is highly specific for the intermediate filament protein vimentin which is present in all cells of mesenchymal origin. VIM 3B4 has turned out to be the most avid mab to vimentin. Polypeptide reacting: 57 kDa intermediate filament protein (vimentin) of mesenchymal cells. Tumors specifically detected: sarcoma (including myosarcoma), lymphoma, melanoma. 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).

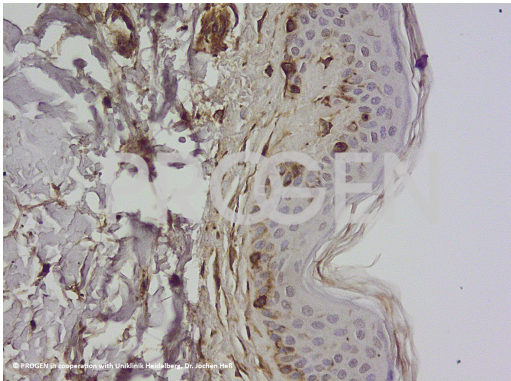
Tested cultured cell lines: fibroblasts (SV-80).

Bohn W, Wiegers W, Beuttenmüller M, Traub P: Species-specific recognition patterns of monoclonal antibodies directed against vimentin. Exp Cell Res 201: 1-7 (1992). Rogers KR, Eckelt A, Nimmrich V, Janssen K-P, Schliwa M, Herrmann H, Franke WW: Truncation mutagenesis of the non-alpha-helical carboxyterminal tail domain of vimentin reveals contributions to cellular localization but not to filament assembly. Eur J Cell Biol 66: 136-150 (1995).

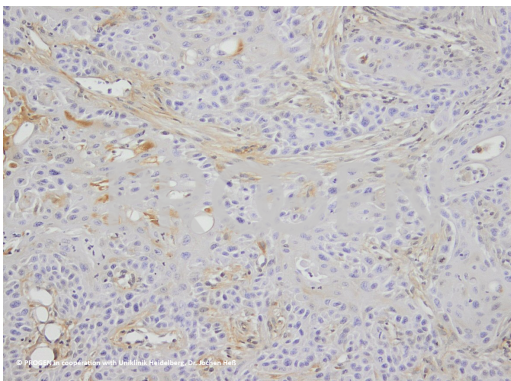
Product images



Human head and neck squamous-cell carcinoma (HNSCC)(courtesy of J.Heß, University Hospital Heidelberg)



Human skin (courtesy of J.Heß, University Hospital Heidelberg)



Mouse squamous-cell carcinoma (SCC)(courtesy of J.Heß, University Hospital Heidelberg)

References

Publication	Species	Application
Soglia, F. et al. The evolution of vimentin and desmin in Pectoralis major muscles of broiler chickens supports their essential role in muscle regeneration. Front. Physiol. 13, (2022).	chicken	WB
Soglia, F. et al. Distribution and Expression of Vimentin and Desmin in Broiler Pectoralis major Affected by the Growth-Related Muscular Abnormalities. Front.Physiol. 10, 1581 (2020)	chicken	WB,IHC (frozen),IHC
Cossu, G. et al. An exceptional presentation of pituitary apoplexy: A case report. Oncol.Lett. 16, 643-647 (2018)	human	IHC (paraffin)
Aguirre-Portolano, C., et al. ABCA1 overexpression worsens colorectal cancer prognosis by facilitating tumour growth and caveolin-1-dependent invasiveness, and ... Mol. Oncol. 12, 1735-1752 (2018).	human	ICC-IF
Zayas-Santiago, A. et al. Unidirectional photoreceptor-to-Müller glia coupling and unique K+ channel expression in Caiman retina. PLoS One 9, (2014).	caiman	IHC