Product datasheet

anti-Vimentin mouse monoclonal, VIM 3B4, FITC Conjugate

Short overview

Cat. No.	61413
Quantity	250 µl

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG2a kappa
Clone	VIM 3B4
Immunogen	Vimentin purified from bovine lens
Formulation	Contains 0.09% sodium azide
UniprotID	P48616 (Bovine), P09654 (Chicken), F1PLS4 (Dog, Canis familiaris), P08670 (Human)
Synomym	Vimentin, VIM
Note	Centrifuge prior to opening
Conjugate	FITC
Purification	Affinity chromatography
Storage	2-8°C
Intended use	Research use only
Application	ELISA, ICC/IF, IHC
Reactivity	Amphibia, Bovine, Chicken, Dog, Human, Monkey
No reactivity	Mouse

Applications

ELISA	Assay dependent
Immunocytochemistry (ICC)	Assay dependent
Immunohistochemistry (IHC) - frozen	At least 1:10
Immunohistochemistry (IHC) - paraffin	At least 1:10 (protease treatment and/or microwave treatment recommended)

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

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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 pituicytoma apoplexy: A case report. Oncol.Lett. 16, 643-647 (2018)	human	IHC (paraffin)
Aguirre-PortolÃ©s, C., et al. ABCA1 overexpression worsens colorectal cancer prognosis by facilitating tumour growth and caveolin-1-dependent invasiveness, and ... Mol. Oncol. 12, 1735â€“1752 (2018).	human	ICC-IF
Zayas-Santiago, A. et al. Unidirectional photoreceptor-to-MÃ¼ller glia coupling and unique K+ channel expression in Caiman retina. PLoS One 9, (2014).	caiman	IHC