

## Product datasheet

### anti-Vimentin mouse monoclonal, VIM 3B4, lyophilized, purified

#### Short overview

<b>Cat. No.</b>	61013
<b>Quantity</b>	50 µg
<b>Concentration</b>	50 µg/ml after reconstitution with 1 ml dist. water

#### Product description

<b>Host</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Isotype</b>	IgG2a kappa
<b>Clone</b>	VIM 3B4
<b>Immunogen</b>	Vimentin purified from bovine lens
<b>Formulation</b>	Lyophilized; reconstitute in 1 ml dist. water (final solution contains 0.09% sodium azide, 0.5% BSA in PBS buffer, pH 7.4)
<b>UniprotID</b>	P48616 (Bovine), P09654 (Chicken), P08670 (Human)
<b>Synonym</b>	Vimentin, VIM
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity chromatography
<b>Storage before reconstitution</b>	2-8°C until indicated expiry date
<b>Storage after reconstitution</b>	Up to 3 months at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
<b>Intended use</b>	Research use only
<b>Application</b>	ICC/IF, IHC, WB
<b>Reactivity</b>	Amphibia, Bovine, Chicken, Human, Monkey, Mouse

#### Applications

<b>Immunocytochemistry (ICC)</b>	Assay dependent
<b>Immunohistochemistry (IHC) - frozen</b>	1:100-1:200 (250-500 ng/ml)
<b>Immunohistochemistry (IHC) - paraffin</b>	1:100-1:200 (250-500 µg/ml, protease treatment and/or microwave treatment recommended)
<b>Western Blot (WB)</b>	1:500-1:5,000 (10-100 ng/ml)

#### 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

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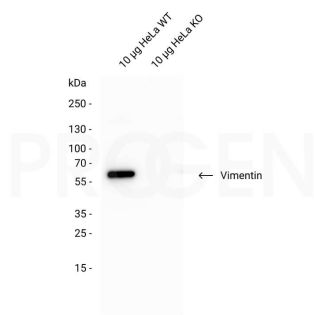
Tel.: +49 (0) 6221 8278-0 | Fax: +49 (0) 6221 8278-24 | Email: [info@progen.com](mailto:info@progen.com) | Web: [www.progen.com](http://www.progen.com)

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).

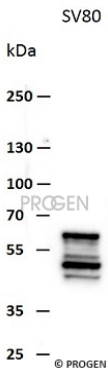
Tested cultured cell lines: fibroblasts (SV-80).

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).

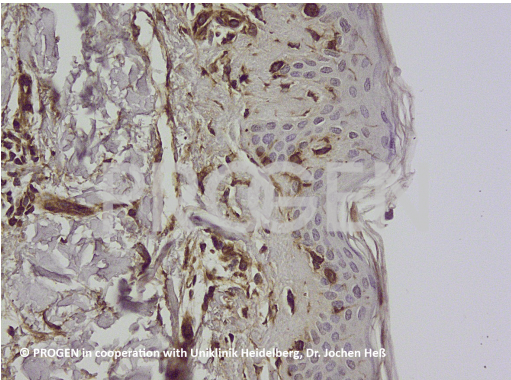
## Product images



Western blot analysis of HeLa lysate with anti-Vimentin antibody. Western blot analysis was performed on 10 µg wild type (WT) and 10 µg Vimentin knockout (KO) HeLa lysate. The PVDF membrane was blocked with 5% milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Vimentin mouse monoclonal, VIM 3B4 (Cat. No. 690013) was diluted in blocking buffer (antibody concentration 33 ng/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG, HRP conjugate was also diluted in blocking buffer (antibody concentration 200 ng/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.



WB with anti-Vimentin antibody (Cat. No. 61013, 1:500), SV80 whole cell lysate (10 µg)



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

PROGEN Biotechnik GmbH | Maaßstraße 30 | D-69123 Heidelberg

Tel.: +49 (0) 6221 8278-0 | Fax: +49 (0) 6221 8278-24 | Email: [info@progen.com](mailto:info@progen.com) | Web: [www.progen.com](http://www.progen.com)

## References

Publication	Species	Application
<a href="#">Martinez-Iglesias, O., Garcia-Silva, S., Regadera, J. &amp; Aranda, A. Hypothyroidism Enhances Tumor Invasiveness and Metastasis Development. PLoS One 4, (2009).</a>	human	IHC (paraffin)
<a href="#">Akat, K. et al. Molecular characterization of desmosomes in meningiomas and arachnoidal tissue. Acta Neuropathol. 106, 337-347 (2003).</a>	human	IHC (frozen)
<a href="#">Bohn, W., Wieggers, W., Beuttenmüller, M. &amp; Traub, P. Species-specific recognition patterns of monoclonal antibodies directed against vimentin. Exp. Cell Res. 201, 1-7 (1992).</a>	human, monkey, rabbit, bovine, chicken, dog, equine	WB, ICC-IF
<a href="#">Aguirre-Portolàs, 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).</a>	human	ICC-IF
<a href="#">Rungger-Brandle, E., Achtstätter, T. &amp; Franke, W. W. An epithelium-type cytoskeleton in a glial cell: Astrocytes of amphibian optic nerves contain cytokeratin filaments and are connected by desmosomes. J. Cell Biol. 109, 705-716 (1989).</a>	xenopus	IHC (frozen)