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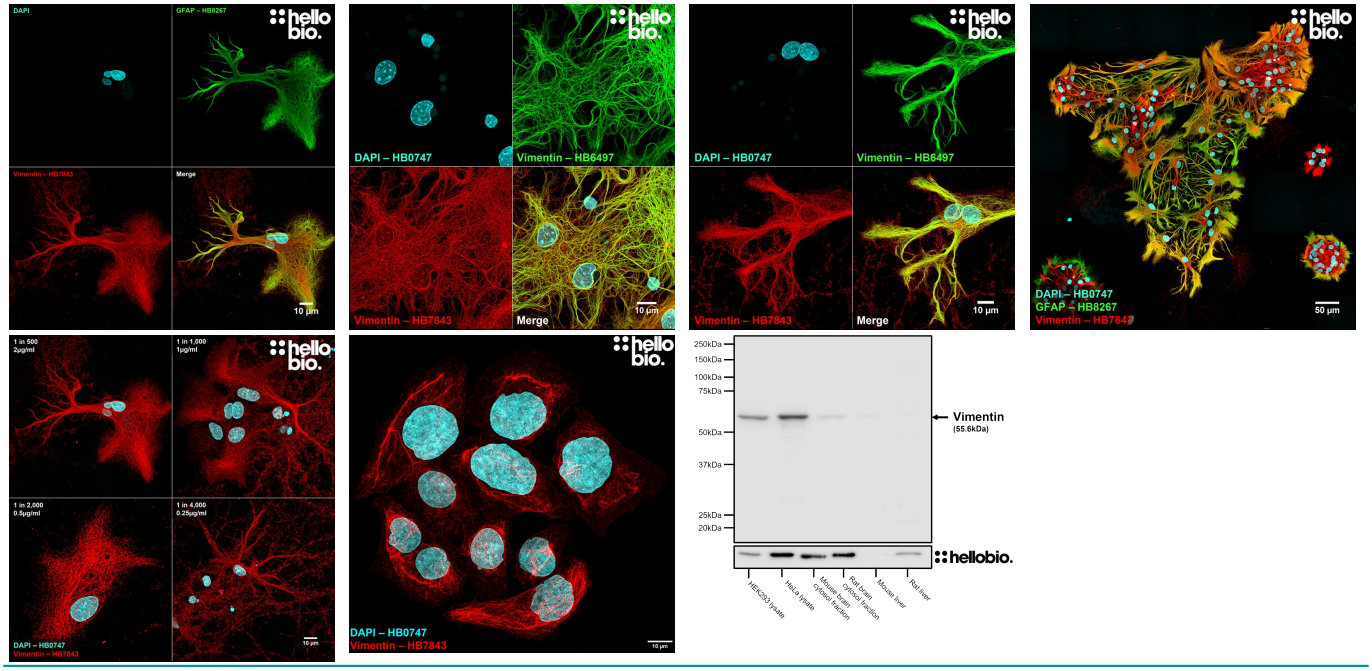
DATASHEET

Anti-Vimentin antibody ValidAb™

Product overview

Name	Anti-Vimentin antibody ValidAb™
Cat No	HB7843
Host	Goat
Clonality	Polyclonal
Target	Vimentin
Description	Antibody to Vimentin - class III intermediate filament expressed in mesenchymal cells used as a marker of epithelial-mesenchymal transition. Part of the ValidAb™ range of highly validated, data-rich antibodies.

Validation data



Product information

Immunogen	Recombinant human vimentin expressed in and purified from E. coli
Purification	Affinity purification using immunogen as ligand
Concentration	1 mg/ml
Formulation	50% PBS, 50% glycerol plus 5mM sodium azide
Predicted species reactivity	Mouse, Rat, Human, Pig, Horse, Cow, Monkey
Tested species reactivity	Rat, Human

Tested applications

Applications	ICC, WB
Western blot optimal concentration	1µg/ml (1:1000 dilution) as tested in HEK293T and HeLa cell lysate. Please not that while this antibody reacts with a high signal to noise ratio in human derived cell line lysate this ratio is much lower in mouse and rat tissue lysates.
ICC optimal concentration	2µg/ml (1:500 dilution) as tested in primary mixed rat neuronal cultures.
Positive control	Vimentin is highly expressed in human cell lines such as HEK293 and HeLa while also being expressed at high levels in glia within the CNS.
Negative control	Vimentin is not expressed in some human derived cell lines such as HepG2 and RT4 cells while in tissue samples vimentin is not expressed in hepatocytes but is in other cell types within the liver.
Open data link	Please follow this link to OSF

Target information

UniProt ID	P08670
Gene name	VIM
NCBI full gene name	VIM – Vimentin
Entrez gene ID	7431
Amino acids	466 - 53.65kDa
Isoforms	Vimentin has no fully described isoforms.
Expression	Vimentin is expressed in tissues with a mesenchymal origin including glia, fibroblasts, endothelial cells lining blood vessels, renal tubular cells and many cells of the immune system amongst others. Vimentin is also expressed in cells undergoing a epithelial-mesenchymal transition therefore used as a marker for this.
Subcellular expression	Vimentin is expressed in the intermediate filaments of the cytoskeleton.
Target function	As a intermediate filament component, vimentin has important roles in anchoring organelles within a cell, providing resilience to mechanical stress and regulating cytoskeletal interactions.
Processing	The initiator methionine is removed to form the mature protein.
Post translational modifications	Subject to phosphorylation on multiple residues alongside posessing sumoylation, N-6 acetylation and N-6 succinylation sites.
Homology (compared to human)	Mouse and rat show 97.4% identity to human Vimentin in a BLAST search.
Similar proteins	The following proteins were identified as being similar to Vimentin in a BLAST search:

- Desmin - 62.9% identity
- GFAP - 58.1% identity
- Peripherin - 57.1% identity

Storage & Handling

Storage instructions	-20°C
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

References

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PubMedID 30505430

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Vimentin and epithelial-mesenchymal transition in human breast cancer--observations in vitro and in vivo.

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