

Human	MSTRSVSSSSYRREMGGGPGTASRPSSRSYVTTSTRITYSLGSALRPSTSRSLYASSPGGV	60
Mouse	MSTRSVSSSSYRREMGGGTSSRPSSNRSYVTTSTRITYSLGSALRPSTSRSLYSSSPGGA	60
Rat	MSTRSVSSSSYRREMGGGTSSRPSSNRSYVTTSTRITYSLGSALRPSTSRSLYSSSPGGA	60
	***** : ***** . ***** : ***** .	
Human	YATRSSAVRLRSSVPGVRLQLQDSVDFSLADAINTEEKNTRTNEKVELQELNDRGFANYIDK	120
Mouse	YVTRSSAVRLRSSVPGVRLQLQDSVDFSLADAINTEEKNTRTNEKVELQELNDRGFANYIDK	120
Rat	YVTRSSAVRLRSSVPGVRLQLQDSVDFSLADAINTEEKNTRTNEKVELQELNDRGFANYIDK	120
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Human	VRFLRQQNKILLAELEQLKGGQKSRLGDLYEEMVRELRRQVDQLTNDKARVEVERDNLAE	180
Mouse	VRFLRQQNKILLAELEQLKGGQKSRLGDLYEEMVRELRRQVDQLTNDKARVEVERDNLAE	180
Rat	VRFLRQQNKILLAELEQLKGGQKSRLGDLYEEMVRELRRQVDQLTNDKARVEVERDNLAE	180
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Human	DIMRLEKLEKLEEMLQREEAENTLQSERQDVDNASLARLDLERKVESLQEEIAFLKKLHEE	240
Mouse	DIMRLEKLEKLEEMLQREEAESTLQSERQDVDNASLARLDLERKVESLQEEIAFLKKLHDE	240
Rat	DIMRLEKLEKLEEMLQREEAESTLQSERQDVDNASLARLDLERKVESLQEEIAFLKKLHDE	240
	***** : ***** : *****	
	aa>	
Human	EIQRLQAIQEQHVQIDVDVSKPDLTAALRDVRRQYESVAAKNLQEAEEWYKSKFADLSE	300
Mouse	EIQRLQAIQEQHVQIDVDVSKPDLTAALRDVRRQYESVAAKNLQEAEEWYKSKFADLSE	300
Rat	EIQRLQAIQEQHVQIDVDVSKPDLTAALRDVRRQYESVAAKNLQEAEEWYKSKFADLSE	300
	***** : ***** : *****	
	aa	
Human	AANRNDALRQAKQESTEYRRQVQLTCEVDALKGTNESLERQREMEENFAVEAANYQD	360
Mouse	AANRNDALRQAKQESNEYRRQVQLTCEVDALKGTNESLERQREMEENFALEAANYQD	360
Rat	AANRNDALRQAKQESNEYRRQVQLTCEVDALKGTNESLERQREMEENFALEAANYQD	360
	***** : ***** : *****	
	aa	
Human	TIGRLQDEIQNMKEEMARHLREYQDLLNVKMLDIEIATYRKLLGEESSRISLPLPNFSS	420
Mouse	TIGRLQDEIQNMKEEMARHLREYQDLLNVKMLDIEIATYRKLLGEESSRISLPLPTFSS	420
Rat	TIGRLQDEIQNMKEEMARHLREYQDLLNVKMLDIEIATYRKLLGEESSRISLPLPNFSS	420
	***** : ***** : *****	
	aa>	
Human	LNLRETNLDSLPLVDTHSKRTLLIKTVETRDGOVINETSQHDDLE	466
Mouse	LNLRETNLESPLPLVDTHSKRTLLIKTVETRDGOVINETSQHDDLE	466
Rat	LNLRETNLESPLPLVDTHSKRTLLIKTVETRDGOVINETSQHDDLE	466
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Alignment of human (gi|62414289|ref|NP_003371.2], rat (gi|14389299|ref|NP_112402.1) and mouse (gi|31982755|ref|NP_035831.2) vimentin sequences. The α -helical "rod" regions are indicated. We noticed that, rather surprisingly, the EnCor monoclonal antibodies MCA-2D1 and MCA-2A52 bind human and rat vimentin avidly but do not bind mouse vimentin. The only difference between mouse vimentin and rat and human sequences is amino acid 417, which is asparagine in human and rat but threonine in mouse, the region highlighted in yellow above. We therefore made the two peptides SRISLPLPNFSSLNLRE (rat and human) and SRISLPLPTFSSLNLRE (mouse). The human peptide strongly inhibited the binding of both MCA-2D1 and MCA-2A52 to human recombinant vimentin, while the mouse peptide had almost no effect. As a result we can firmly map the epitope of these two antibodies to amino acids 409-425 of the human sequence. We can therefore confidently predict that these two antibodies will bind vimentin from a variety of species which contain this peptide, a list which include cow, pig, sheep, horse and various monkeys. The peptide is located at the first segment of the non-helical C-terminal "tail" sequence.