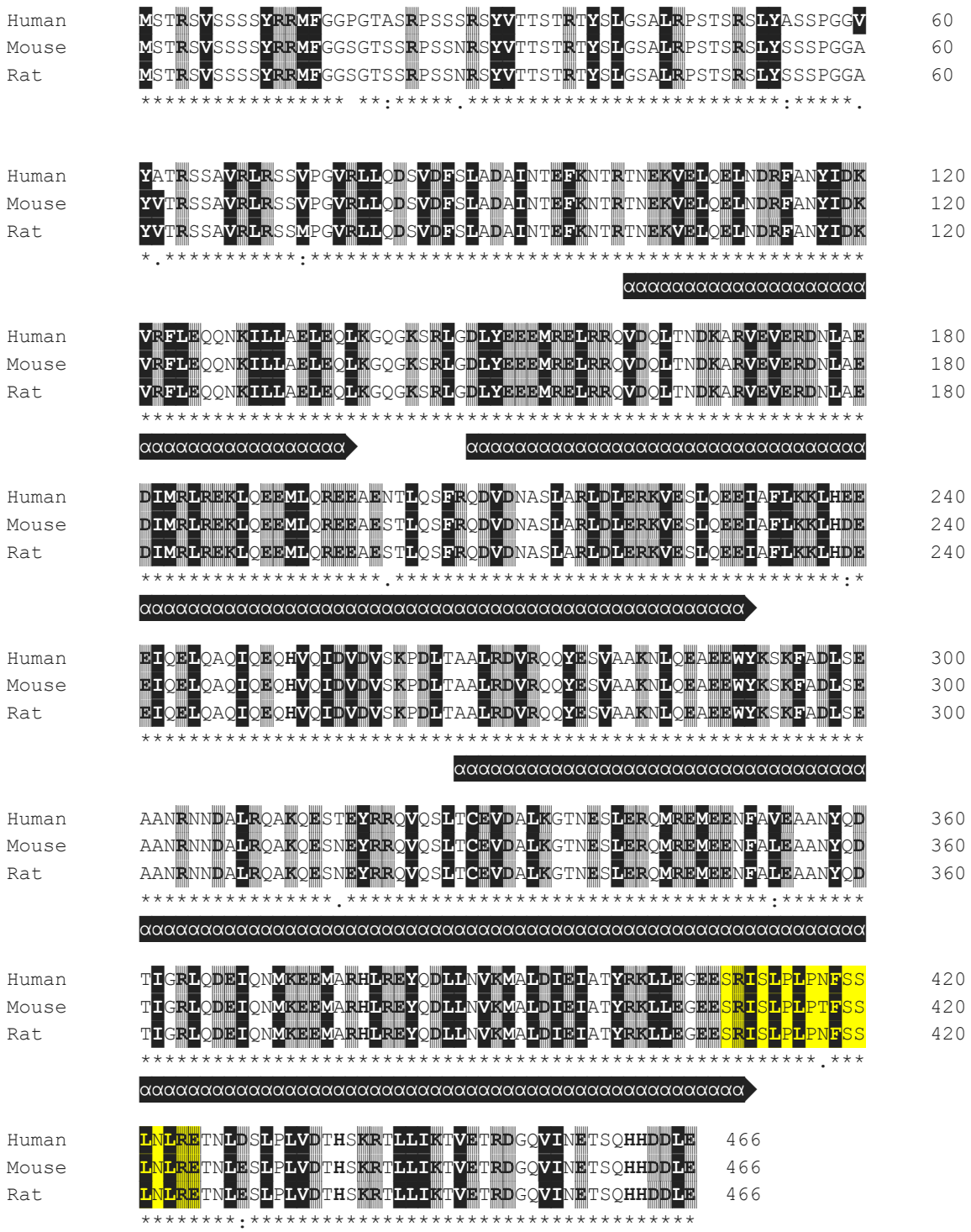

Alignment of human (gi|62414289|ref|NP_003371.2], rat (gi|14389299|ref|NP_112402.1) and mouse (gi|31982755|ref|NP_035831.2) vimentin sequences. The α-helical "rod" regions are indicated. We noticed that, rather surprisingly, the EnCor monoclonal antibodies MCA-2D1 and MCA-2A52 bind human and rat vimentin 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.