# High affinity and recognition peptides for the detection of viral capsid proteins

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Norovirus is the major cause of nonbacterial epidemic gastroenteritis, being highly prevalent in both developing and developed countries. The norovirus virion is composed of 90 dimers of the major capsid protein VP1 and one or two copies of the minor structural protein VP2. In this study, we have used polyvalent phage display to isolate unique linear peptide motifs which recognize synthesised protein 125 aa and 127 aa from partial capsid protein VP1 sequence. The peptide specific for 127 aa has a sequence of QHIMHLPHINTL and the peptide specific for 125 aa has a sequence of IRPHRMRMLIQM. The binding affinity of the selected phage-displayed peptides were characterized using ELISA. To our knowledge, this is the first example of isolation and characterization of viral capsid proteins binders using phage display technology.