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Selection of peptides for serological detection of equine infectious anemia

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ABSTRACT. Equine infectious anemia caused by equine infectious anemia virus is an important disease due to its high severity and incidence in animals. We used a phage display library to isolate peptides that can be considered potential markers for equine infectious anemia diagnosis. We selected peptides using IgG purified from a pool comprised of 20 sera from animals naturally infected with equine infectious anemia virus. The diagnostic potential of these peptides was investigated by ELISA, Western blot and dot blot with purified IgG and serum samples. Based on the results, we chose a peptide mimetic for glycoprotein gp45 epitopes of equine infectious anemia virus, with potential for use as an antigen in indirect diagnostic assays. Synthesis of this peptide has possible applications for the development of new diagnostic tools for this disease.

Key words: Diagnosis; Equine infectious anemia; Peptide; Phage display

