6.3 Antibody-ELISA

The ELISA measures antigen-antibody binding qualitatively and quantitatively. SNT only tests for neutralizing antibodies, whereas the ELISA also tests for non-neutralizing antibodies...

The ELISA measures antigen-antibody binding qualitatively and quantitatively. SNT only tests for neutralizing antibodies, whereas the ELISA also tests for non-neutralizing antibodies. As opposed to SNT the antibody ELISA is less complicated and is therefore used in routine diagnostics. A number of commercially available test kits permit automatisation and supply results within a few hours. In areas where there is a low seroprevalence and vaccination is not permitted (e.g. Sweden), the antibody ELISA detects PI animals within a herd (the higher the antibody count is in a bulk milk sample the greater is the probability that there is a PI animal in the herd).What is required?

- purified antigen (to test for or quantify antibodies)
- standardized solutions (positive or negative controls)
- sample to be tested
- micro titre plates
- rinsing fluid
- enzyme marked antibodies and enzyme substrate
- ELISA reader (spectrophotometer) for quantitative measurements >> Animation: „How does the antibody-ELISA work?“ <<