



Test **with Confidence**™

## A review of ELISA formats

ELISA is divided into three main formats: indirect, blocking (competitive) and antigen-capture (direct).

### Indirect Format

In the indirect format, the sample antibody is sandwiched between the antigen coated on the plate and an enzyme-labeled, antisppecies globulin conjugate. The addition of an enzyme substrate-chromogen reagent causes color to develop. This color is directly proportional to the amount of bound sample antibody. The more antibody present in the sample, the stronger the color development in the test well. This format is suitable for determining total antibody level in samples (Johne's, etc.).

### Blocking (Competitive) Format

In this format, the specific sample antibodies compete with, or block, the enzyme-labeled, specific antibody in the conjugate. The addition of an enzyme substrate-chromogen reagent causes color to develop. This color is inversely proportional to the amount of bound sample antibody. The more antibodies present in the sample, the less color development in the test well (CAV, etc.).

### Antigen–Capture (Direct) Format

The antigen in the sample is sandwiched between antibodies coated on the plate and an enzyme-labeled conjugate. The antibody conjugate can be either monoclonal or polyclonal. The addition of an enzyme substrate-chromogen reagent causes color to develop. This color is directly proportional to the amount of the target antigen present in the samples (LLAg, etc.).