Mixing samples for reliable test results

Mixing samples before plating is a very important step when running an ELISA test. Samples that are not mixed well will produce variable results.

Frozen samples can be thawed at room temperature or in a refrigerator. All thawed samples need to be thoroughly mixed prior to dilution to ensure that the proteins are dispersed throughout the sample. Mix by gentle vortexing or inverting at least five times. Frothing or overmixing of samples will cause denaturation of serum proteins.

Prepared dilutions, especially the 1:500 in poultry kits, also require mixing with gentle vortexing or a pipette set at a volume of 100 μl or greater prior to plating. Mixing the diluted sample with a micropipette, such as the one utilized for transferring the 1 μl of sample, is not appropriate as the volume exchanged is not enough to thoroughly mix the sample.