



# Technical Tip 05

## ZEUS Scientific Test Systems

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### **Subject:** Collection and Storage of Patient Samples

Proper collection and storage of a patient serum sample plays a very important role in producing accurate and consistent test results when utilizing a ZEUS Scientific Test System: ZEUS IFA™, ZEUS ELISA™ and ZEUS AtheNA Multi-Lyte®. It is recommended that the guidelines for patient sample collection and storage be followed to ensure the accuracy and consistency of results.

#### ***How should a specimen be collected and stored?***

As stated in the package inserts of ZEUS Scientific Test Systems, only freshly drawn and properly refrigerated sera obtained by approved aseptic venipuncture procedures should be used. It is the recommendation of ZEUS Scientific that specimen collection be carried out in accordance with NCCLS document M29: Protection of Laboratory Workers from Infectious Disease. Anticoagulants or preservatives should not be added to the specimens prior to running on any of the ZEUS Scientific Test Systems. In addition, specimens that are hemolyzed, icteric, lipemic, or have bacterial contamination should not be used. Specimens can be stored at room temperature for no longer than eight hours. If testing is not done within 8 hours specimens may be stored at 2-8°C for no longer than 48 hours. If testing will be delayed past the 48 hours, then the specimens should be stored at -20°C or lower. When storing for a period of time, sera should be aspirated from venipuncture tubes into polypropylene or glass tubes. Polypropylene or glass tubes should be used for storage rather than polystyrene tubes. Avoid multiple freeze-thaw cycles, which may cause loss of antibody activity.

#### ***Why should you store samples in polypropylene or glass tubing rather than polystyrene?***

Polystyrene plastic has a potential affinity for binding proteins, especially when in contact with serum over a long period of time. This protein binding may interfere with the assay and cause erroneous results. Polypropylene plastic or glass does not have this same affinity for binding. Therefore, storing in polypropylene plastic or glass should not have any interference with the assay, resulting in more accurate and consistent data.