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Shipment Stability of Proficiency Testing Samples

American Proficiency Institute (API) was founded in 1991 and has grown to be one of the top Proficiency Testing (PT) providers in the United States of America, serving 20,000 customer laboratories in the USA and countries around the world. API now offers over 850 unique analytes/tests using over 200 unique sample types.

API and our sample vendors have years of experience providing clinical PT samples that are stable enough to produce reliable results for proficiency testing purposes. The measures employed include sample formulation, stability studies, packaging precautions, and ongoing monitoring of PT data. Where liquid samples are provided, they are more robust than fresh patient samples, formulated to be stable for the period of time required to conduct PT. Stability studies include the effects of temperature changes generally encountered during the shipment process, and validate shipment and storage conditions. Samples are often shipped with gel coolant packs to reduce temperature fluctuations during transit. Other packaging measures recommended by parcel delivery companies reduce the effects of extreme external temperatures. The success of this process has been shown through the analysis of global participant data submitted through regular rounds of PT testing over several years.

Our experience assures us that our PT samples are sufficiently stable to ensure that they will not undergo any significant changes throughout the conduct of the proficiency testing, including during storage and transport, as described in ISO/IEC 17043:2010. While refrigerated samples are shipped with gel coolant packs, it is possible that samples may have warmed upon receipt at customer laboratories. We do not find differences in the performance of laboratories receiving their samples over different periods and conditions typically met in transit. Once received, samples should be stored according to recommendations printed on the sample packaging to preserve integrity from that point. Refrigerated recommendations would be considered 2-8°C.

Sincerely,



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