

FREQUENTLY ASKED QUESTIONS

Q: What do serum alpha GST levels indicate?

A: Serum alpha GST levels reflect the extent and kinetics of ongoing hepatocellular injury. Serum alpha GST is a very sensitive and accurate biomarker of acute hepatocyte injury.

SAMPLE COLLECTION AND HANDLING

Q: Can plasma samples be used?

A: The EKF Diagnostics Alpha GST EIA can be used to measure alpha GST in serum, EDTA and sodium heparinised plasma collections.

Blood samples should be centrifuged within 3 hours of collection and the serum / plasma transferred to a fresh tube and kept at 2-8°C. If samples are not to be tested within 24 hours, it is recommended to store at -20 or -80°C.

Q: How long should samples be stored?

A: Samples can be stored at 20-25°C for up to 48 hours, at 2-8°C for a week or at -20°C for one year. Repeated freeze thawing of samples should be avoided to prevent loss of alpha GST. Up to 20% drop in alpha GST concentration has been noted after three freeze-thaw cycles (more info on request from EKF Diagnostics). Do not store diluted samples.

Q: Is there a quicker way to assess alpha GST in serum than the 1.75 hour microtitre assay?

A: Yes. EKF Diagnostics has partnered with Qualigen to provide a 7 minute point of care test solution (more details at www.qualigeninc.com)

INTERPRETATION OF RESULTS

Q: How do serum alpha GST results correlate with traditional liver biomarkers?

A: Transaminases rise and fall more slowly than serum alpha GST, therefore, during the early stages of liver injury, alpha GST (which has a half life of 90 minutes) will often be elevated in the absence of elevations in transaminases.

Since alpha GST is a more sensitive indicator of hepatocyte injury, an elevated alpha GST may be found in cases of mild liver injury in the absence of elevations in transaminases.

Following the resolution of liver injury, transaminases may stay elevated after alpha GST levels have normalised.

Elevated transaminases in the absence of elevated alpha GST indicates resolving liver injury or that the transaminases originated from muscle injury. A low serum alpha GST level indicates that acute hepatocyte injury is unlikely to be occurring.

All biomarkers provide valuable information, and by comparing them information as to the pathological process can be derived.

Results for different biomarkers should not be compared; each should be evaluated individually for the information that it provides.

All biochemical and biomarker results should be interpreted with regard to the subject's entire pathological picture.