FREQUENTLY ASKED QUESTIONS

Q: What do urinary alpha GST levels indicate?

A: Elevated levels of urinary alpha GST represent proximal convoluted tubular injury. Urinary alpha GST is a very sensitive and accurate biomarker of acute renal tubular injury.

SAMPLE COLLECTION AND HANDLING

Q: Why is a stabilising buffer added?

A: Urine is not a defined medium and the presence of bacteria, enzymes or acid pH can destroy proteins. Furthermore, proteins may adhere to the walls of the storage container. The EKF Diagnostics Urine Stabilising Buffer contains a mixture of bacteriostats, protease inhibitors, surfactants and buffers to eliminate these problems.

Q: Can non-stabilised samples be assayed?

A: Yes. GSTs are stable for a period in "normal" urine. Keep the sample frozen until immediately before assay then thaw, mix and immediately add the required quantity of stabilising buffer. Assay as usual. However, up to 25% drop in alpha GST concentration in unstabilised urine can be observed after one freeze thaw cycle. If the pH of the unstabilised sample can be tested and it is acid, or there are signs of bacterial contamination, then results from that sample should be interpreted with caution.

Q: Can the same urine stabilising buffer and the same stabilised sample be used for both the EKF Diagnostics Alpha and Pi GST EIA kits?

A: Yes.

INTERPRETATION OF RESULTS

Q: How do urinary alpha GST results correlate with serum creatinine?

A: There is little correlation. Serum creatinine is a parameter of glomerular function; urinary alpha GST reflects ongoing proximal renal tubular injury. Both provide valuable information.

Q: How do urinary alpha GST levels compare with other proximal tubular biomarkers?

A: Urinary alpha GST levels reflect ongoing proximal tubular injury, KIM-1 indicates renal regeneration and NGAL indicates renal inflammation. All provide valuable information and, by comparing, them information as to the pathological process can be derived.

Q: How do urinary alpha GST levels compare with those of urinary pi GST?

A: They provide different complementary information. Studying them both simultaneously allows injury to be localised to the proximal or distal tubules or both.

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

All biomarker results should be evaluated with regard to the subject's total pathology.

EKF DIAGNOSTICS

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