



TECHNICAL NOTICE

SOUTH BEND MEDICAL FOUNDATION

March 2009

Ethyl Glucuronide, Urine

Effective Date: March 1, 2009

Performing Department: Toxicology

Method: • Enzyme Immunoassay (Screen) • Liquid Chromatography-Tandem Mass Spectrometry (Confirmation)

Use: • Biological marker for monitoring ethanol (alcohol) ingestion

Clinical Significance:

Ethyl Glucuronide (EtG) is a non-volatile metabolite of ethanol formed via enzymatic conjugation of ethanol and glucuronic acid. EtG is a stable compound that can be detected in urine samples 72-96 hours after ethanol ingestion, which is considerably longer than the 12-14 hour detection period of its parent compound, ethanol. Given its long detection time, EtG can be a useful diagnostic parameter for monitoring alcohol abstinence. EtG is produced only after hepatic exposure and not as a result of fermentation; thus, the potential problem of false positive alcohol results in samples from diabetic individuals is eliminated. To ensure that positive EtG results are not a consequence of incidental exposure (e.g., over the counter products containing alcohol, hand sanitizers, cosmetics, etc.) the South Bend Medical Foundation has elected to use a positive cut-off of 250 ng/mL.

Reference Range: • Less than 250 ng/mL

Specimen Requirements and Collection:

Specimen: • Random urine collection in plastic urine container with tightly fitting lid

Requested Volume: • 10.0 mL aliquot

Minimum Volume: • 5.0 mL aliquot

Processing: • Promptly refrigerate after collection

Stability: • 1 week refrigerated (2-8°C) • 1 month frozen (-20°C)

Storage/Transport: • Refrigerated

Testing Schedule: • EIA Screening Monday through Friday • LC/MS/MS Confirmations Tuesday and Thursday

Order:

- Ethyl Glucuronide, EIA Screen, Urine..... Test #: **31159** CPT: • 80101
- Ethyl Glucuronide, EIA Screen with Confirmation, Urine Test #: **31167** CPT: • 80101 • if indicated, 82542
- Ethyl Glucuronide, Confirmation, Urine Test #: **31169** CPT: • 82542

- Ethyl Glucuronide, Forensic Screen with Confirmation, Urine... Test #: **31500** CPT: • 80101 • if indicated, 82542
- Ethyl Glucuronide, Forensic Confirmation, Urine..... Test #: **31751** CPT: • 82542
- Ethyl Glucuronide, Forensic Retest, Urine Test #: **31865** CPT: • 82542
- Ethyl Glucuronide, Forensic, LC/MS/MS, Urine Test #: **31866** CPT: • 82542

Please direct any questions or comments regarding this notice to William J. Kaliney, M.D., Deborah H. Sun, Ph.D., or Prentiss Jones, Ph.D. of South Bend Medical Foundation, (574) 234-4176 or (800) 544-0925.