

Technical Bulletin

- **Test Name:** Buprenorphine Screen, urine
 - **Test Order Number:** 9085
 - **CPT code:** 80101
 - **Department:** Toxicology (700)
 - **Testing Schedule:** Tuesday and Friday mornings
 - **Specimen Requirement:** 10 mL random urine
 - **Cutoff:** 5 ng/mL
 - **Methodology:** Immunoassay
 - **Turn Around Time:** 24 hours
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Clinical Information

Buprenorphine is a semi-synthetic opioid analgesic derived from thebaine, a component of opium. Buprenorphine resembles morphine structurally but has both antagonist and agonist properties. Buprenorphine has a longer duration of action than morphine and can be administered sublingually as an analgesic. Subutex®, a higher dose buprenorphine formulation, is widely used in Europe and elsewhere as a substitution treatment for opiate addiction. The FDA has approved the use of Subutex® and Suboxone® containing buprenorphine as active drug, for the treatment of opiate dependence in the US. The antagonist potency was reported as equivalent to naltrexone. Subutex® and Suboxone® are the first narcotic drugs available under the US Drug Abuse Treatment Act (DATA) of 2003 for the treatment of opiate dependence that can be prescribed in the US in a physician's work place. It has also been shown that buprenorphine has abuse potential and may itself cause dependency. In addition, a number of deaths have been recorded as a result of overdose with intravenously injected buprenorphine in conjunction with other psychotropic drugs such as benzodiazepines. Buprenorphine is metabolized primarily by N-dealkylation to form norbuprenorphine and by conjugation to form glucuronide buprenorphine and glucuronide-norbuprenorphine.