



TEST UPDATE: Ultrasensitive Human Immunodeficiency Virus-1, Quantitative by RT- PCR Effective: January 22, 2007

***See Storage Instructions**

Name: Ultrasensitive Human Immunodeficiency Virus-1, Quantitative by RT-PCR

CPT Code: 87536

Related Information: Molecular Pathology Tests

Synonyms: Ultrasensitive HIV Quantification, Ultra HIV-1 by RT-PCR, Ultrasensitive HIV-1 Viral Load, Ultrasensitive Human Immunodeficiency Virus-1 (Ultrasensitive HIV-1) RNA

Test Commonly Includes: Quantification of HIV-1 viral copy number per mL of plasma

Specimen: Plasma only

Volume: 3.0 mL

Minimum volume: 2.0 mL

Container: Lavender-top (EDTA) or pearl-top (PPT) tube

Collection: Routine venipuncture. Specimen must be labeled with the patient's full name, hospital number, and the date and time of collection.

***Storage Instructions:** Blood should be marked for "stat spin" and transported to Central Processing within 30 minutes of being drawn from the patient. Plasma should be separated within 4 hours of centrifugation and stored frozen at -20°C . **For pearl-top (PPT) tubes, plasma should be spun within 2 hours of collection and stored at 4°C until transported to the lab. When packing the Safety Pak shipping containers, enclose a cool pak inside the container. The specimen should arrive in the laboratory within 24 hours of collection.**

Causes for Rejection: Improperly labeled, clotted, hemolyzed, or heparinized specimen



Reference Interval: None detected

Use: Rapid, direct, and sensitive method for quantifying HIV-1 RNA in plasma; aid in assessing viral response to antiretroviral therapy and indicator of prognosis

Methodology: This assay is based on the Roche Amplicor Monitor assay that uses reverse transcriptase polymerase chain reaction (RT-PCR) using RNA extracted from plasma specimens. A lower sensitivity (when compared to the standard HIV-1 by RT-PCR assay) is accomplished by performing additional extraction steps to concentrate the virus into a smaller volume. The presence of a PCR product is detected by hybridization with a probe homologous to a conserved sequence of the HIV-1 genome.