HIV-2 RNA Detection by Reverse Transcription PCR in Plasma and Serum

Specimen Type	EDTA Plasma or serum
Specimen Volume	1 mL
Collection	Plasma should be separated from cells; frozen at or below -20°C as soon as possible. Serum separated from its clot; frozen at or below -20°C as soon as possible.
Minimum Volume	500 µL
Handling	Ship frozen on dry ice.
Rejection Criteria	Specimens received at ambient or refrigerated temperatures Specimens outside of listed stability
Stability	One month at -20°C Two months at -80°C Three freeze-thaw cycles
Methodology	Reverse Transcription PCR
Reference Range	Normal: Not Detected Lower Limit of Detection is 500 viral copies/mL plasma/serum
Turnaround Time	Up to 7 business days.
CPT Code	87538
Clinical Significance	The HIV-2 virus RNA test is not to be used solely for the diagnosis of HIV-2 infection. It is NOT intended for use in monitoring therapy. HIV-1 or -2 are lentiviruses (members of the retrovirus family) that cause acquired immunodeficiency syndrome (AIDS), a condition in which the human immune system begins to fail, leading to life-threatening opportunistic infections. HIV-1 and HIV-2 are related human lentiviruses, HIV-2 is less pathogenic then HIV-1 and has a lower transmission rate than HIV-1 [1.1; 1.3; 1.4]. HIV-2 is also associated with plasma/serum viral loads lower than those found in HIV-1 infection [1.2].

BioAgilytix Diagnostics

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Principle	RNA from the specimen EDTA plasma. Sample is extracted using the Qiagen kit followed by Reverse Transcription PCR to qualitatively detect the virus using HIV-2 specific primers and probe set. HIV-2 viral copies, below 500 copies/ mL of plasma/serum, are not detected using this assay.
References	1.1 The Journal of Infectious Diseases 1999; 180:1116–21; Lower Human Immunodeficiency Virus (HIV) Type 2 Viral Load Reflects the Difference in Pathogenicity of HIV-1 and HIV-2; Stephen J. Popper,1 Abdoulaye Dieng Sarr, Karin U. Travers, 1 Aissatou Gueye-Ndiaye, Souleymane Mboup, 2 Myron E. Essex, and Phyllis J. Kanki 1.2 JOURNAL OF CLINICAL MICROBIOLOGY, Oct. 2002, p. 3654–3659 Plasma RNA Viral Load in Human Immunodeficiency Virus Type 2 Subtype A and Subtype B Infections; Florence Damond, Marie Gueudin, Sophie Pueyo, Isabelle Farfara, David L. Robertson,Diane Descamps, Genevieve Chene, Sophie Matheron, 5 Pauline Campa, Francoise Brun-Vezinet, and Francois Simon 1.3 JOURNAL OF CLINICAL MICROBIOLOGY, Dec. 2001, p. 4264–4268; Quantification of Proviral Load of Human Immunodeficiency Virus Type 2 Subtypes A and B Using Real-Time PCR; Florence Damond, Diane Descamps, Isabelle Farfara, Jean Noel Telles, Sophie Puyeo, Pauline Campa, Annie Lepretre, Sophie Matheron, Francoise Brun-Vezinet, and Francois Simon 1.4 JOURNAL OF CLINICAL MICROBIOLOGY, Mar. 1998, p. 809–811 Highly Sensitive Method for Amplification of Human Immunodeficiency Virus Type 2 DNA; Florence Damond, Ibtissam Loussert-Ajaka, Cristian Apetrei, Diane Descamps, Sandrine souquiere, Annie Lepretre, Sophie Matheron.