

BK Virus (BKV) QUANTITATIVE

CERNER ORDERABLE

BK Virus QN PCR, BKQN, 7536

CPT CODE

87799

CLINICAL UTILITY

BKV primary infection occurs mainly during childhood and is usually asymptomatic. The seroprevalence in adults is up to 90%. After primary infection, BKV remains latent in kidney cells and can be reactivated under immune deficiency conditions, such as transplantation. BKV infection can be correlated with tubulointerstitial nephritis and ureteric stenosis in renal transplant recipients as well as hemorrhagic cystitis in bone marrow transplant recipients. It has also been associated with disease patterns for vasculopathy, pneumonitis, encephalitis, retinitis, and even multi-organ failure. Persistent high-level BKV replication is the typical characteristic of polyomavirus-associated nephropathy (PAN) in renal transplantation patients. Up to 5% of renal allograft recipients can be affected about 40 weeks post-transplantation. The presence of DNA in plasma in conjunction with the persistence of nephropathy, and its disappearance from plasma after the reduction of immunosuppressive therapy. BKV DNA is typically detectable in urine prior to plasma. Clinically relevant infections are mostly limited to immunosuppressed individuals¹.

METHODOLOGY

Quantitative PCR

SPECIMENS

Plasma: Collect in 3 mL lavender top tube. Spin and separate plasma within 6 hours of collection. Aliquot plasma and refrigerate.

Urine: Collected in a sterile 10 mL container with no preservatives.

SPECIMEN STABILITY

Room temperature up to 6 hours, Refrigerated up to 5 days, greater than 5 days frozen

SHIPPING

Ship plasma or urine on ice packs or if frozen on dry ice

CAUSES FOR REJECTION

Plasma not separated within 6 hours of collection.

Whole Blood frozen

SPECIFICITY

Primers and probes are specific for BKV. No cross reactivity was observed when tested against CMV, Enterovirus, SV-40, HSV 1, HSV 2, EBV. High titers of JC may potentially cause low level false positives.

1. Reference information can be found in the Indiana University Health Molecular Assay Procedures.

ASSAY RANGE

200 IU/mL to 20,000,000 IU/mL

TURNAROUND TIME

Monday-Friday, 24-72 hours

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