VIASURE *MULTIPLEX*

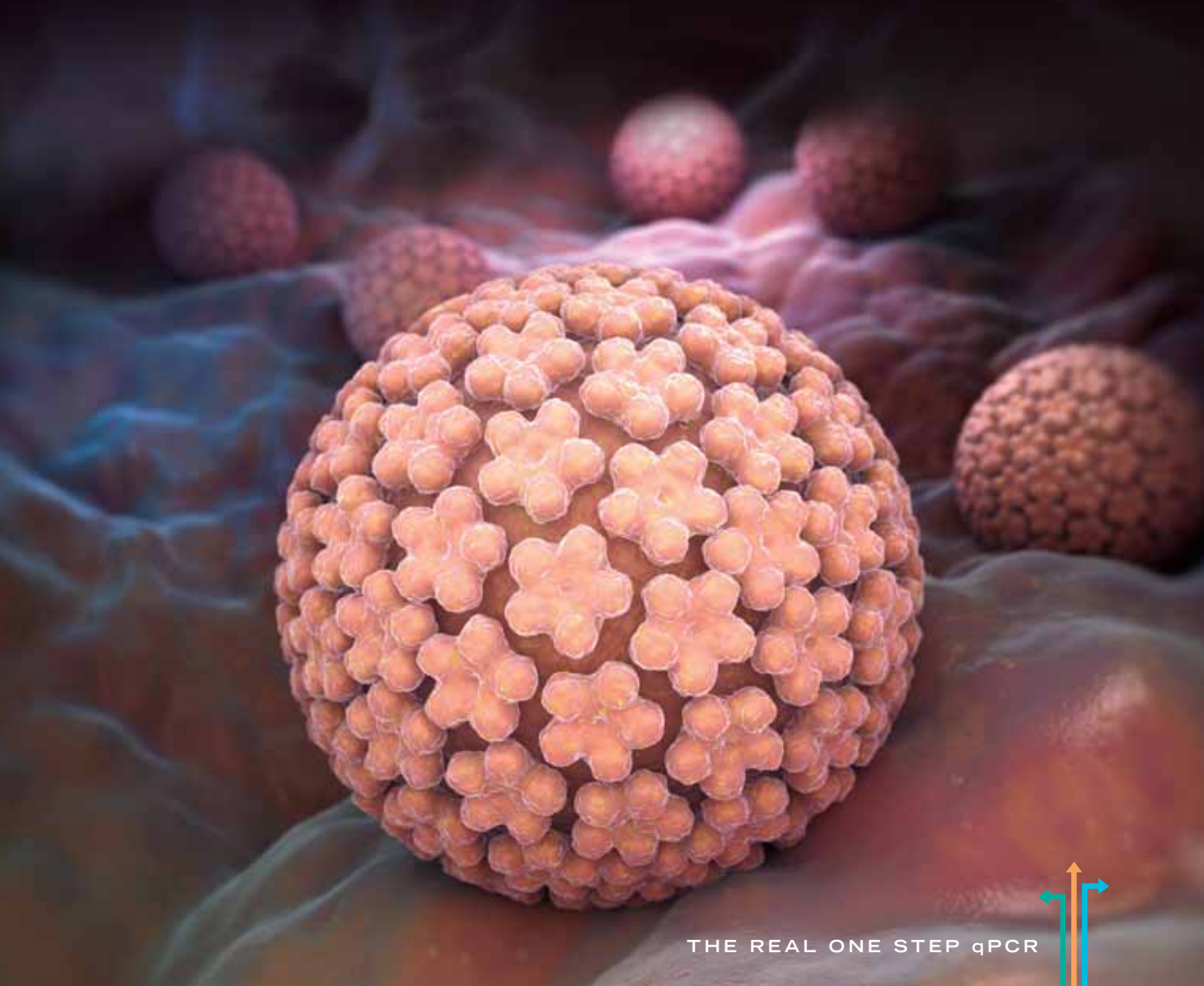
BK + JC Virus Real Time PCR Detection Kit

Pathogen and product description

The two most commonly known human polyomaviruses, which are ubiquitous viruses belonging to the *Papovaviridae* family, are BK and JC viruses. Most humans acquire it during childhood, usually remaining asymptomatic. BKV is frequently associated with renal system, such as ureteral stenosis in kidney transplant recipients, hemorrhagic cystitis in hematopoietic stem cell transplant recipients and polyomavirus-associated nephropathy. Actually, early diagnosis of BKV has been shown to positively influence the organ survival. JC virus causes central nervous system diseases in immunocompromised patients, including progressive multifocal leukoencephalopathy (PML), JCV granule cell neuronopathy, and JCV encephalopathy.

Real Time PCR assays have been shown to be a sensitive and specific diagnosis tool for the detection of BK Virus and JC Virus. BKV can be mainly detected in urine and plasma (blood and serum specimens as well). JC virus can be mostly identified in cerebrospinal fluid (CSF) and plasma (blood), as well as urine (less usual).

VIASURE *BK+JC Virus* Real Time PCR Detection Kit is designed for the diagnosis of BK Virus and/or JC Virus in clinical samples. After DNA isolation, the identification of BK Virus and JC Virus is performed by the amplification of a conserved region of the *VP1* gene for BK Virus, *T* gene for JC Virus, using specific primers and a fluorescent–labelled probe.



Analytical sensitivity

VIASURE *BK + JC Virus* Real Time PCR Detection Kit has a detection limit of ≥10 DNA copies per reaction for BK and JC Virus. (figures 1 and 2).

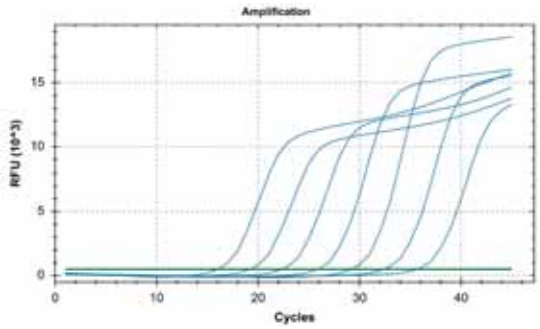


Figure 1. Dilution series of JC Virus (10^7–10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (channel FAM).

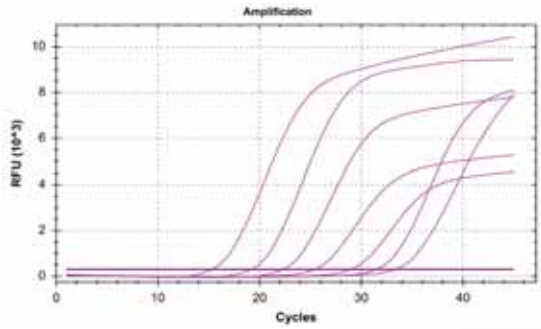


Figura 2. Dilution series of BK Virus (10^7–10^1 copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (channel Cy5).

Components

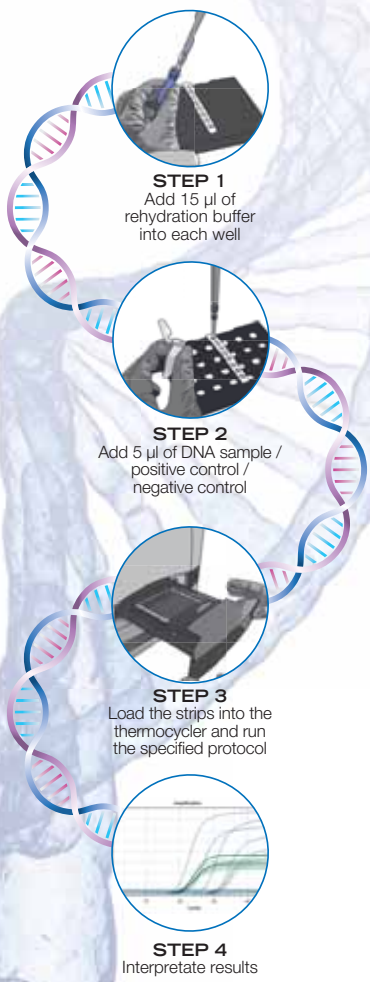
Reagent/Material	Description	Colour	Quantity
***BK + JC Virus* 8-well strips**	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	White	6/12 X 8-well strip
Rehydration Buffer	Solution to reconstitute the stabilized product	Blue	1 vial x 1,8 mL
***BK + JC Virus* Positive Control**	Non-infectious synthetic lyophilized cDNA	Red	1 vial
Negative Control	Non template control	Violet	1 vial x 1 mL
Water RNAse/DNAse free	Water RNAse/DNAse free	White	1 vial x 1 mL
Tear-off 8-cap strips	Optical caps for sealing Wells during thermal cycling	Transparent	6/12 x 8-cap strip

Kit References

Reference	Description
VS-BJV106L	Viasure *BK + JC Virus* Real Time PCR Detection Kit 6 x 8-well strips, low profile
VS-BJV106H	Viasure *BK + JC Virus)* Real Time PCR Detection Kit 6 x 8-well strips, high profile
VS-BJV112L	Viasure *BK + JC Virus)* Real Time PCR Detection Kit 12 x 8-well strips, low profile
VS-BJV112H	Viasure *BK + JC Virus)* Real Time PCR Detection Kit 12 x 8-well strips, high profile
VS-BJV113L	Viasure *BK + JC Virus)* Real Time PCR Detection Kit 96-well plate, low profile
VS-BJV113H	Viasure *BK + JC Virus)* Real Time PCR Detection Kit 96-well plate, high profile

Work Flow

One-step rehydration of wells and add your extracted DNA



STEP 1
Add 15 µl of rehydration buffer into each well

STEP 2
Add 5 µl of DNA sample / positive control / negative control

STEP 3
Load the strips into the thermocycler and run the specified protocol

STEP 4
Interpretate results

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