

**Mouse Anti-BKV (BK Virus) VP1 [6E10]: MC0521**

**Intended Use:** For Research Use Only

**Description:** BK virus (BKV), a human polyomavirus, causes nephropathy (BKN) and allograft loss in renal transplant recipients. BK Virus VP1 forms an icosahedral capsid which is composed of 72 pentamers linked to each other by disulfide bonds and associated with VP2 or VP3 proteins. Interacts with gangliosides GT1b and GD1b containing terminal alpha2-8-linked sialic acids on the cell surface to provide virion attachment to target cell. This attachment induces virion internalization predominantly through caveolin-mediated endocytosis and traffics to the endoplasmic reticulum. Inside the endoplasmic reticulum, the protein folding machinery isomerizes VP1 interpentamer disulfide bonds, thereby triggering initial uncoating. Next, the virion uses the endoplasmic reticulum-associated degradation machinery to probably translocate in the cytosol before reaching the nucleus. Nuclear entry of the viral DNA involves the selective exposure and importin recognition of VP2/Vp3 nuclear localization signal. In late phase of infection, neo-synthesized VP1 encapsulates replicated genomic DNA in the nucleus, and participates in rearranging nucleosomes around the viral DNA.

**Specifications**

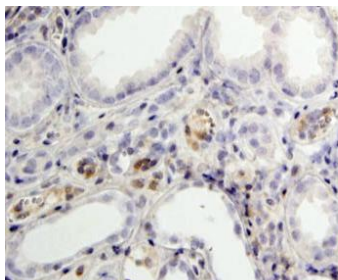
Clone:	6E10
Source:	Mouse
Isotype:	IgG1k
Reactivity:	BK Virus
Immunogen:	Full-length recombinant protein of BKV VP1 aa 1 ~ 369 with GST tag
Localization:	Nucleus
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, WB
Package:	

Description	Catalog No.	Size
BKV (BK Virus) VP1 [6E10] Concentrated	MC0521	1 ml

**IHC Procedure\***

Positive Control Tissue:	Osteosarcoma, breast cancer
Concentrated Dilution:	25-100
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	Overnight at 4°C
Detection:	Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human kidney stained with anti-BKV VP1 using DAB

**References:**

1. Comparison of Immunohistochemical Staining for Large T Antigen and Capsid Protein VP1 in BK Polyomavirus-Associated Nephropathy. Kosuke Masutani, et al. Suppl 1:28-36. Nov 20.2. 2020.
2. BK polyomavirus-neutralizing activity of intravenous immunoglobulin products derived from donated blood in Japan. Urayama T, et al. ISBT Science Series. Nov 11, 2016.