

Anti-BK virus (Human polyomavirus 1) major capsid protein (VP1) antibody, mouse monoclonal (BKV1-01)

Product code	65-390
Size	100 µg
Storage	-20°C
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium
Immunogen	Purified BK virus
Isotype	mouse IgG1 κ
Reactivity	Reacts with the BKV major capsid protein (VP1)
Validation	Specificity has been validated by western blotting
Application	1. Western blotting: x1/200-400 (Fig.1) 2. Immunofluorescence: x1/400 (Fig.2)
Background	BK polyomavirus (BKV), also known as human polyomavirus 1, is a small non-enveloped virus with a circular double-stranded DNA genome. BKV was first isolated from an immunosuppressed kidney transplant recipient, and is among the few clinically important human polyomaviruses, including JC polyomavirus (JCV) and Merkel cell polyomavirus. The BKV virion consists of a capsid formed by the major structural protein VP1, and the minor structural proteins VP2 and VP3. The VP1, VP2 and VP3 antigens have a molecular weight of 42kDa (362 a.a.), 38kDa (351 a.a.) and 27kDa (232 a.a.) polypeptide, respectively. These proteins are synthesized in the cytoplasm and then transported to the nucleus. VP1 protein constitutes the external portion of the viral capsid and plays an essential role in viral attachment to susceptible cells.
Data Link	UniProtKB : P03088 (VP1_POVBK)
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 65-390 Anti-BK virus (Human polyomavirus 1) major capsid protein (VP1) antibody, mouse monoclonal (BKV1-01)

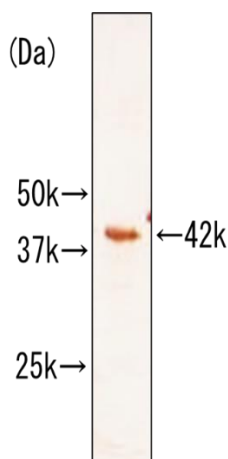


Fig.1. Identification of protein in BKV by Western blotting (WB) using monoclonal antibody (MAb)
The virus purified from the culture supernatant of infected cells was applied to SDS-PAGE and WB. The MAb was used at 1/ 200 dilution. The HRP-conjugated goat anti-mouse IgG was used at 1/2,000 as the second antibody. and visualized by DAB (3,3'-Diaminobenzidine). A 42 kDa band was identified as BKV capsid VP1 protein.

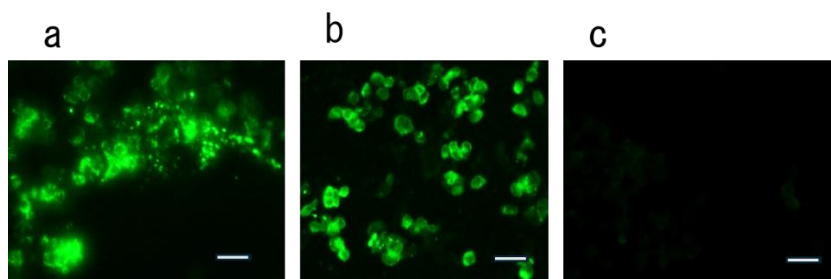


Fig.2. Detection of BKV protein infected in cells by immunofluorescence staining
(a)Vero cells were infected with BKV on a slide glass and fixed with ethanol. (b) BKV-infected Vero cells were treated with trypsin, smeared on the prepare and fixed with ethanol. (c) Uninfected Vero cells on a slide glass were fixed with ethanol. The MAb was used at 1/200 dilution. As the second antibody, FITC-conjugated rabbit anti-mouse IgG was used at 1/ 2,000 dilution. Bar maker represents 20μm.

References This antibody has not yet been used in publication.

Related product: 65-392 Anti-BK virus (Human polyomavirus 1) agnoprotein antibody, mouse monoclonal (BKAG-01)