# abcam

### Product datasheet

# Recombinant JCV Polyomavirus Major Capsid VP1 protein ab74569

3 References 3 Images

**Description** 

Product name Recombinant JCV Polyomavirus Major Capsid VP1 protein

Biological activity JCV VP1 protein was purified and lyophilized assembled into virus like particles (VLPs). It is

tested for hemagglutination activity and analysed using electron microscopy.

**Purity** > 95 % SDS-PAGE.

Purified by ultracentifugation.

Expression system Saccharomyces cerevisiae

Accession <u>AAG53896.1</u>

Protein length Full length protein

Animal free No

Nature Recombinant

**Sequence** MAPTKRKGERKDPVQVPKLLIRGGVEVLEVKTGVDSITEV

**ECFLTPEMGD** 

PDEHLRGFSKSISISDTFESDSPNKDMLPCYSVARIPLPNL

NEDLTCGNI

 ${\tt LMWEAVTLKTEVLGVTTLMNVHSNGQATHDNGAGKPVQ}$ 

**GTSFHFFSVGGE** 

ALELQGVVFNYRTKYPDGTIFPKNATVQSQVMNTEHKAYL

**DKNKAYPVEC** 

WVPDPTRNENTRYFGTLTGGENVPPVLHITNTATTVLLDEF

GVGPLCKGD

NLYLSAVDVCGMFTNRSGSQQWRGLSRYFKVQLRKRRV

KNPYPISFLLTD

LINRRTPKVDGQPMYGMDAQIEEVRVFEGTEELPGDPDM

MRYVDRYGQLQ TKML

Predicted molecular weight 40 kDa

Actual molecular weight 41 kDa

Amino acids 1 to 354

**Specifications** 

Our Abpromise guarantee covers the use of ab74569 in the following tested applications.

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The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Western blot

SDS-PAGE

Form Lyophilized

Additional notes JCV VP1 protein was purified and lyophilized assembled into virus like particles (VLPs). It is

tested for hemagglutination activity and analysed using electron microscopy.

#### **Preparation and Storage**

**Stability and Storage** Shipped at 4°C. Store at +4°C.

Constituent: PBS

This product is an active protein and may elicit a biological response in vivo, handle with caution.

**Reconstitution** Reconstitute with deionized H<sub>2</sub>O. After reconstitution store at 4°C. With the addition of glycerol

store at -20°C.

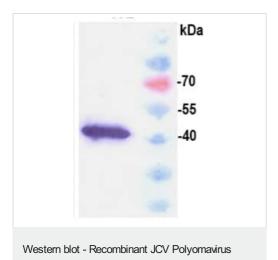
#### **General Info**

Relevance The human polyomavirus JC virus (JCV) infects greater than 80% of the human population. The

JC virus is a small (38-40 nm in diameter) double stranded, circular DNA virus covered by an icosahedral capsid. Infection with JCV is asymptomatic and it occurs in early childhood. After the primary infection, the virus remains in latent state in the kidney, until it's reactivation under immunosuppressive conditions to result in Progressive Multifocal Leukoencephalopathy (PML), a fatal demyelinating disease. 70% of all HIV-1- infected patients will exhibit neurological disorders and between 5 and 8% of all HIV-1-infected patients will develop PML. Similar to other polyomaviruses, JCV can cause tumors when intracerebrally inoculated at high titers into developing rodent. Several reports suggest the association of viruses, especially of the polyomavirus family with different types of human brain tumors. Tumorigenecity of JCV is most likely induced by the viral early gene product T-antigen. T-antigen has the capacity to interact with several tumor suppressor proteins, most notably p53, and functionally inactivate these proteins.

Cellular localization Virion. Nucleus

#### **Images**



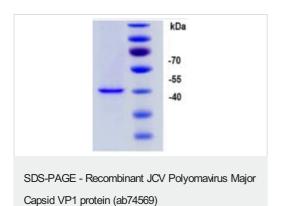
Major Capsid VP1 protein (ab74569)

Recombinant JCV Polyomavirus Major Capsid VP1 protein (ab74569)

Predicted band size: 40 kDa

Western blot showing ab74569 (Lane 1)

MW ladder (Lane 2)



SDS-PAGE showing ab74569 (Lane 1)
Lane 2 reprents the molecular weight ladder.



SDS-PAGE - Recombinant JCV Polyomavirus Major Capsid VP1 protein (ab74569) SDS-PAGE showing ab74569 (4µg/lane).
Lane 1 reprents the molecular weight ladder. From the bottom: 14.4, 18.4, 25.0, 35.0, 45.0, 66.2 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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