

Polyoma virus VP1 (3D10): sc-65925

BACKGROUND

Human Polyoma virus (JC) belongs to the genus *Polyomavirus*. JC is capable of transforming fetal brain cells and human amnion cells *in vitro* and can lead to tumor development in other species. JC VP1 (gp01) is one of the three constituent capsid proteins produced by the JC virion. JC also contains the capsid proteins VP2 (gp02) and VP3 (gp03), as well as a viral minichromosome. VP1 is the primary capsid protein, comprising 75% of the total capsid shell protein. It is thought that the tumor inducing properties of JC may be credited to an interaction between VP1, cellular retinoblastoma protein and p53. In immunocompromised individuals, JC has been known to cause progressive multifocal leukoencephalopathy (PML). About 10% of the capsid proteins are made from VP2 and VP3.

REFERENCES

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4. Zvirbliene, A., et al. 2006. Generation of monoclonal antibodies of desired specificity using chimeric polyoma virus-derived virus-like particles. *J. Immunol. Methods* 311: 57-70.
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8. Voronkova, T., et al. 2007. Hamster polyoma virus-derived virus-like particles are able to transfer *in vitro* encapsidated plasmid DNA to mammalian cells. *Virus Genes* 34: 303-314.

SOURCE

Polyoma virus VP1 (3D10) is a mouse monoclonal antibody raised against a chimeric hamster polyomavirus VP1/ human MUC1 sequence.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Polyoma virus VP1 (3D10) is recommended for detection of major capsid protein VP1 of hamster *Polyomavirus* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.