



HHV-6 p41 early antigen (9A5D12): sc-65447

BACKGROUND

The Herpesviridae family consists of DNA viruses that cause diseases in humans and other animals. This family is comprised of eight distinct viruses: HHV-1–HHV-8. Human herpes virus type 6 (HHV-6) and HHV-7 are associated with febrile illnesses and the childhood disease exanthem subitum, while HHV-8 resembles the Epstein-Barr virus in its possible transforming properties and may play a role in lymphomas and Kaposi's sarcoma. HHV-6, a newly described β -herpesvirus that shares homology with cytomegalovirus (CMV), consists of two closely related variants: HHV-6A and HHV-6B. HHV-6 infection is followed by persistence and latency in different tissues including monocytes/macrophages, salivary glands, brain and kidney. HHV-6 activation may play a role in the pathogenesis of certain demyelinating diseases such as progressive multifocal leukoencephalopathy (PML) and multiple sclerosis (MS). HHV-6 DNA is normally found as a marker of active viral infection in serum samples of MS patients. Patients with relapsing-remitting MS (RRMS) specifically have demonstrated increased IgM serum antibody responses to HHV-6 early antigen.

REFERENCES

1. Ablashi, D.V., et al. 1994. Human herpesvirus 6 (HHV-6) and chronic fatigue syndrome (CFS). *Can. Dis. Wkly. Rep.* 17: 33-40.
2. Jayvasu, C., et al. 1997. The latency rate of human herpesvirus 6 (HHV-6) in positive and negative human immunodeficiency virus (HIV) infection of intravenous drug users (IVDU). *Asian Pac. J. Allergy Immunol.* 15: 29-33.
3. Levy, J.A. 1997. Three new human herpesviruses (HHV-6, -7 and -8). *Lancet* 349: 558-563.
4. Blumberg, B.M., et al. 2000. The HHV-6 paradox: ubiquitous commensal or insidious pathogen? A two-step *in situ* PCR approach. *J. Clin. Virol.* 16: 159-178.
5. Abdel-Haq, N.M. and Asmar, B.I. 2004. Human herpesvirus 6 (HHV-6) infection. *Indian J. Pediatr.* 71: 89-96.
6. Caserta, M.T., et al. 2004. Human herpesvirus 6 (HHV-6) DNA persistence and reactivation in healthy children. *J. Pediatr.* 145: 478-484.
7. Hernández-Losa, J., et al. 2005. Lack of association of polyomavirus and herpesvirus types 6 and 7 in human lymphomas. *Cancer* 103: 293-298.
8. Merk, J., et al. 2005. Fatal pulmonary failure attributable to viral pneumonia with human herpes virus 6 (HHV-6) in a young immunocompetent woman. *J. Intensive Care Med.* 20: 302-306.
9. Debarbieux, S., et al. 2006. Drug hypersensitivity syndrome associated with a primary HHV-6 infection. *Ann. Dermatol. Venereol.* 133: 145-147.

SOURCE

HHV-6 p41 early antigen (9A5D12) is a mouse monoclonal antibody raised against protein p41 of HHV-6 origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HHV-6 p41 early antigen (9A5D12) is available conjugated to agarose (sc-65447 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65447 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65447 PE), fluorescein (sc-65447 FITC), Alexa Fluor® 488 (sc-65447 AF488), Alexa Fluor® 546 (sc-65447 AF546), Alexa Fluor® 594 (sc-65447 AF594) or Alexa Fluor® 647 (sc-65447 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65447 AF680) or Alexa Fluor® 790 (sc-65447 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

HHV-6 p41 early antigen (9A5D12) is recommended for detection of p41 early antigen of strain A and B of HHV-6 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HHV-6 p41 early antigen: 41 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

SELECT PRODUCT CITATIONS

1. Tuddenham, L., et al. 2012. Small RNA deep sequencing identifies microRNAs and other small noncoding RNAs from human herpesvirus 6B. *J. Virol.* 86: 1638-1649.
2. Reynaud, J.M., et al. 2014. Human herpesvirus 6A infection in CD46 transgenic mice: viral persistence in the brain and increased production of proinflammatory chemokines via Toll-like receptor 9. *J. Virol.* 88: 5421-5436.
3. Ogawa, H., et al. 2022. Nectin 2 acts as a viral entry mediated molecule that binds to human herpesvirus 6B glycoprotein B. *Viruses* 14: 160.
4. Hennig, T., et al. 2022. Selective inhibition of miRNA processing by a herpesvirus-encoded miRNA. *Nature* 605: 539-544.

RESEARCH USE

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