

# HHV-6 gp82/105 (2D6): sc-65448

## 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  $\beta$ -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.

## REFERENCES

1. Ablashi, D.V., Zompetta, C., Lease, C., Josephs, S.F., Komaroff, A.L., Krueger, G.R., Henry, B., Balachandra, N., Lukau, J. and Salahuddin, S.Z. 1994. Human herpesvirus 6 (HHV-6) and chronic fatigue syndrome (CFS). *Can. Dis. Wkly. Rep.* 17: 33-40.
2. Jayavasu, C., Balachandra, K., Wongchuree, S., Kositanont, U. and Warachit, P. 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., Mock, D.J., Powers, J.M., Ito, M., Assouline, J.G., Baker, J.V., Chen, B. and Goodman, A.D. 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., McDermott, M.P., Dewhurst, S., Schnabel, K., Carnahan, J.A., Gilbert, L., Lathan, G., Lofthus, G.K. and Hall, C.B. 2004. Human herpesvirus 6 (HHV-6) DNA persistence and reactivation in healthy children. *J. Pediatr.* 145: 478-484.
7. Hernández-Losa, J., Fedele, C.G., Tenorio, A., Fernández, V., Castellví, J., Pozo, F., Parada, C. and Ramón y Cajal, S. 2005. Lack of association of polyomavirus and herpesvirus types 6 and 7 in human lymphomas. *Cancer* 103: 293-298.
8. Merk, J., Schmid, F.X., Schwarz, S., Lehane, C., Boehm, S., Salzberger, B., Fleck, M. and Birnbaum, D.E. 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., Deroo-Berger, M.C., Grande, S., Najjiullah, F., Kanitakis, J., Faure, M. and Claudy, A. 2006. Drug hypersensitivity syndrome associated with a primary HHV-6 infection. *Ann. Dermatol. Venereol.* 133: 145-147.

## SOURCE

HHV-6 gp82/105 (2D6) is a mouse monoclonal antibody raised against protein gp82/105 of strain A of HHV-6 origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HHV-6 gp82/105 (2D6) is available conjugated to agarose (sc-65448 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65448 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65448 PE), fluorescein (sc-65448 FITC), Alexa Fluor<sup>®</sup> 488 (sc-65448 AF488), Alexa Fluor<sup>®</sup> 546 (sc-65448 AF546), Alexa Fluor<sup>®</sup> 594 (sc-65448 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-65448 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-65448 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-65448 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

HHV-6 gp82/105 (2D6) is recommended for detection of late protein gp82/gp105 of strain A of HHV-6 and strain A of HHV-6 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## SELECT PRODUCT CITATIONS

1. Sultanova, A., Cistjakovs, M., Sokolovska, L., Todorova, K., Cunksis, E. and Murovska, M. 2020. HHV-6 infection and chemokine RANTES signaling pathway disturbance in patients with autoimmune thyroiditis. *Viruses* 12: E689.

## STORAGE

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

## RESEARCH USE

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