SANTA CRUZ BIOTECHNOLOGY, INC.

HHV-8 K8.1A/B (4A4): sc-65446

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HHV-8, also designated Kaposi's sarcoma-associated herpesvirus, is associated with multicentric Castleman's disease and primary effusion lymphoma, a rare type of non-Hodgkin lymphoma affecting the body cavities. The HHV-8 K8.1 gene encodes for two immunogenic/lytic glycoproteins that are generated by a splicing event: K8.1A and K8.1B. K8.1A is the predominant form associated with the virion envelope and is comprised of 228 residues. This protein consists of a cleavable signal sequence, a transmembrane domain, O-glycosylation sites and four N-glycosylation sites. Evidence suggests that K8.1A interacts with heparan sulfate (HS) molecules on the surface of target cells and could mediate HHV-8 interaction with HS. The K8.1B glycoprotein has 167 residues, is similar in sequence to K8.1A but it contains a 61 residue in frame deletion. In addition, K8.1B has only three N-glycosylation sites and lacks O-glycosylation sites.

SOURCE

HHV-8 K8.1A/B (4A4) is a mouse monoclonal antibody raised against HHV-8 K8.1A and B.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HHV-8 K8.1A/B (4A4) is available conjugated to agarose (sc-65446 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65446 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65446 PE), fluorescein (sc-65446 FITC), Alexa Fluor® 488 (sc-65446 AF488), Alexa Fluor® 546 (sc-65446 AF546), Alexa Fluor® 594 (sc-65446 AF594) or Alexa Fluor® 647 (sc-65446 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65446 AF680) or Alexa Fluor® 790 (sc-65446 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HHV-8 K8.1A/B (4A4) is recommended for detection of HHV-8 K8.1A and HHV-8 K8.1B of viral origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HHV-8 K8.1A/B: 62/54 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

STORAGE

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

SELECT PRODUCT CITATIONS

1. Chang, P.J., et al. 2014. Identification and characterization of two novel spliced genes located in the orf47-orf46-orf45 gene locus of Kaposi's sarcoma-associated herpesvirus. J. Virol. 88: 10092-10109.
2. Lyu, Y., et al. 2017. ZIC2 is essential for maintenance of latency and is a target of an immediate-early protein during KSHV lytic reactivation. J. Virol. 91: e00980-17.
3. Gallo, A., et al. 2017. The viral Bcl-2 homologs of Kaposi's sarcoma-associated herpesvirus and rhesus rhadinovirus share an essential role for viral replication. J. Virol. 91: e01875-16.
4. Simpson, S., et al. 2018. Inhibition of TIP60 reduces lytic and latent gene expression of Kaposi's sarcoma-associated herpes virus (KSHV) and proliferation of KSHV-infected tumor cells. Front. Microbiol. 9: 788.
5. Haque, M., et al. 2019. The Kaposi's sarcoma-associated herpesvirus ORF34 protein interacts and stabilizes HIF-2α via binding to the HIF-2α bHLH and PAS domains. J. Virol. 93: e00764-19.
6. Papp, B., et al. 2019. Genome-wide identification of direct RTA targets reveals key host factors for KSHV lytic reactivation. J. Virol. 93: e01978-18.
7. Koch, S., et al. 2019. Kaposi's sarcoma-associated herpesvirus vIRF2 protein utilizes an IFN-dependent pathway to regulate viral early gene expression. PLoS Pathog. 15: e1007743.
8. Golas, G., et al. 2019. Characterization of *de novo* lytic infection of dermal lymphatic microvascular endothelial cells by Kaposi's sarcoma-associated herpesvirus. Virology 536: 27-31.
9. Golas, G., et al. 2020. Comparative analysis of the viral interferon regulatory factors of KSHV for their requisite for virus production and inhibition of the type I interferon pathway. Virology 541: 160-173.
10. Watanabe, T., et al. 2020. Kaposi's sarcoma-associated herpesvirus ORF66 is essential for late gene expression and virus production via interaction with ORF34. J. Virol. 94: e01300-19.
11. Elbasani, E., et al. 2020. Kaposi sarcoma herpesvirus lytic replication is independent of the anaphase promoting complex activity. J. Virol. 94: e02079-19.
12. Elbasani, E., et al. 2020. Kaposi's sarcoma-associated herpesvirus reactivation by targeting of a dCas9-based transcription activator to the ORF50 promoter. Viruses 12: 952.
13. Gabaev, I., et al. 2020. Quantitative proteomics analysis of lytic KSHV infection in human endothelial cells reveals targets of viral immune modulation. Cell Rep. 33: 108249.

RESEARCH USE

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