SANTA CRUZ BIOTECHNOLOGY, INC.

KSHV ORF 45 (2D4A5): sc-53883

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Kaposi's sarcoma-associated herpesvirus (KSHV) belongs to the γ_2-herpesvirus subfamily. KSHV ORF 62 (along with two copies of ORF 26) compose heterotrimeric complexes, forming the capsid floor between the hexons and pentons of KSHV. KSHV is associated with the endothelial tumor Kaposi's sarcoma (KS) and lymphoproliferative disorders in immunocompromised individuals. In HIV-1 infections, KSHV has been shown to interact with the HIV-1 *trans*-activating protein (HIV-1 Tat). HIV-1 Tat is thought to provide an oncogenic role to KSHV. KSHV may stimulate and maintain abnormal plasma cell proliferation in myeloma and related disorders. The virus establishes a latent infection during which time its genome replicates in a cell-cycle dependent manner as an episome.

REFERENCES

1. Munker, R., et al. 1997. HHV8 (KSHV) does not establish latency in prostate cancer cell lines. Prostate 33: 286-288.
2. Chauhan, D., et al. 1999. Detection of Kaposi's sarcoma herpes virus DNA sequences in multiple myeloma bone marrow stromal cells. Blood 93: 1482-1486.

SOURCE

KSHV ORF 45 (2D4A5) is a mouse monoclonal antibody raised against recombinant KSHV ORF 45.

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.

KSHV ORF 45 (2D4A5) is available conjugated to agarose (sc-53883 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53883 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53883 PE), fluorescein (sc-53883 FITC), Alexa Fluor® 488 (sc-53883 AF488), Alexa Fluor® 546 (sc-53883 AF546), Alexa Fluor® 594 (sc-53883 AF594) or Alexa Fluor® 647 (sc-53883 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53883 AF680) or Alexa Fluor® 790 (sc-53883 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

KSHV ORF 45 (2D4A5) is recommended for detection of Kaposi's sarcoma-associated herpes virus (KSHV) ORF 45 of KSHV origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of KSHV ORF 45: 78 kDa.

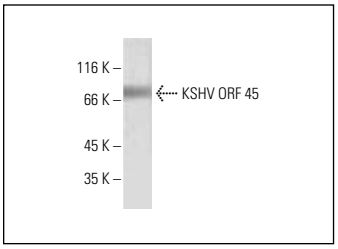
RECOMMENDED SUPPORT REAGENTS

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).

STORAGE

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

DATA



KSHV ORF 45 (2D4A5): sc-53883. Western blot analysis of Kaposi's sarcoma-associated herpesvirus recombinant KSHV ORF 45 protein.

SELECT PRODUCT CITATIONS

1. Haas, D.A., et al. 2013. The inflammatory kinase MAP4K4 promotes reactivation of Kaposi's sarcoma herpesvirus and enhances the invasiveness of infected endothelial cells. PLoS Pathog. 9: e1003737.
2. 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.
3. Gramolelli, S., et al. 2015. Inhibiting the recruitment of PLCγ1 to Kaposi's sarcoma herpesvirus K15 protein reduces the invasiveness and angiogenesis of infected endothelial cells. PLoS Pathog. 11: e1005105.
4. Chang, T.H., et al. 2016. Regulation of the abundance of Kaposi's sarcoma-associated herpesvirus ORF50 protein by oncoprotein MDM2. PLoS Pathog. 12: e1005918.
5. Chang, P.J., et al. 2017. Diabetes and risk of Kaposi's sarcoma: effects of high glucose on reactivation and infection of Kaposi's sarcoma-associated herpesvirus. Oncotarget 8: 80595-80611.
6. Abere, B., et al. 2018. The Kaposi sarcoma herpesvirus nonstructural membrane protein pK15 recruits the class II PI3K phosphatidylinositol 4-phosphate 3-kinase C2 α to activate productive viral replication. J. Virol. 92 pii: e00544-18.
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.

RESEARCH USE

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