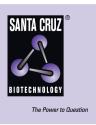
## SANTA CRUZ BIOTECHNOLOGY, INC.

# HHV-8 K-bZIP (F33P1): sc-69797



## BACKGROUND

HHV-8 (human herpes virus type 8), also designated Kaposi's sarcomaassociated herpesvirus, is associated with multicentric Castleman's disease and primary effusion lymphoma (PEL), a rare type of non-Hodgkin lymphoma affecting body cavities. HHV-8 encodes a viral cyclin that is homologous to cellular D-type cyclins (cyclin D1-D3), a class of positive cell cycle mediators that are physiologically regulated by p27 (a cell cycle inhibitor). Although related to D-type cyclins, HHV-8 cyclin is not sensitive to p27, which may explain the coexistence of p27 and HHV-8 that is observed in individuals affected by PEL. HHV-8 K-bZIP, also known simply as K-bZIP, is a 237 amino acid homodimeric phosphorprotein that regulates HHV-8 viral transcription. Specifically, HHV-8 K-bZIP functions as a transactivator that, via a prototypic basic leucine zipper domain at its carboxy terminus, can bind to a variety of promoters, thereby inducing the viral replication cycle. In addition, HHV-8 K-bZIP is thought to repress p53-mediated apoptosis, further facilitating viral transcription and replication.

#### REFERENCES

- Liao, W., et al. 2003. K-bZIP of Kaposi's sarcoma-associated herpesvirus/ human herpesvirus 8 (KSHV/ HHV-8) binds KSHV/HHV-8 Rta and represses Rta-mediated transactivation. J. Virol. 77: 3809-3815.
- 2. Tomita, M., et al. 2004. The Kaposi's sarcoma-associated herpesvirus K-bZIP protein represses transforming growth factor  $\beta$  signaling through interaction with CREB-binding protein. Oncogene 23: 8272-8281.

#### SOURCE

HHV-8 K-bZIP (F33P1) is a mouse monoclonal antibody raised against HHV-8.

## PRODUCT

Each vial contains 100  $\mu g$  lgG\_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **APPLICATIONS**

HHV-8 K-bZIP (F33P1) is recommended for detection of sumoylated and nonsumoylated K-bZIP of HHV-8 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HHV-8 K-bZIP: 37 kDa.

#### **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>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) 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.

#### **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

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- Granato, M., et al. 2015. The activation of KSHV lytic cycle blocks autophagy in PEL cells. Autophagy 11: 1978-1986.
- 3. Zhang, G., et al. 2016. Cytoplasmic isoforms of Kaposi sarcoma herpesvirus LANA recruit and antagonize the innate immune DNA sensor cGAS. Proc. Natl. Acad. Sci. USA 113: E1034-E1043.
- Granato, M., et al. 2017. Quercetin induces apoptosis and autophagy in primary effusion lymphoma cells by inhibiting PI3K/Akt/mTOR and Stat3 signaling pathways. J. Nutr. Biochem. 41: 124-136.
- Granato, M., et al. 2017. Metformin triggers apoptosis in PEL cells and alters bortezomib-induced unfolded protein response increasing its cytotoxicity and inhibiting KSHV lytic cycle activation. Cell. Signal. 40: 239-247.
- Gonnella, R., et al. 2017. Oxidant species are involved in T/B-mediated ERK1/2 phosphorylation that activates p53-p21 axis to promote KSHV lytic cycle in PEL cells. Free Radic. Biol. Med. 112: 327-335.
- Abere, B., et al. 2017. The Kaposi's sarcoma-associated herpesvirus (KSHV) non-structural membrane protein K15 is required for viral lytic replication and may represent a therapeutic target. PLoS Pathog. 13: e1006639.
- 8. Abere, B., et al. 2018. Kaposi's sarcoma-associated herpesvirus nonstructural membrane protein pK15 recruits the class II phosphatidylinositol 3-kinase PI3K-C2 $\alpha$  to activate productive viral replication. J. Virol. 92: e00544-18.
- Granato, M., et al. 2018. Cytotoxic drugs activate KSHV lytic cycle in latently infected PEL cells by inducing a moderate ROS increase controlled by HSF1, Nrf2 and p62/SQSTM1. Viruses 11: 8.
- Santarelli, R., et al. 2019. Stat3 phosphorylation affects p53/p21 axis and KSHV lytic cycle activation. Virology 528: 137-143.
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- 12. Gilardini Montani, M.S., et al. 2019. Kaposi sarcoma herpes virus (KSHV) infection inhibits macrophage formation and survival by counteracting macrophage colony-stimulating factor (M-CSF)-induced increase of reactive oxygen species (ROS), c-Jun N-terminal kinase (JNK) phosphorylation and autophagy. Int. J. Biochem. Cell Biol. 114: 105560.

#### **RESEARCH USE**

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