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Datasheet for 600-401-A94

KSHV ORF57 Antibody

Overview

Description:	Anti-KSHV ORF57 (RABBIT) Antibody - 600-401-A94
Item No.:	600-401-A94
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. ORF57 (also known as MTA), one of the earliest Kaposi's sarcoma-associated herpesvirus (KSHV) regulatory proteins to be expressed, is essential for virus lytic replication. A counterpart is present in every herpesvirus sequenced, indicating the importance of this signature viral protein, and those examined act post-transcriptionally, affecting RNA splicing and transport. KSHV ORF57 is capable of establishing both lytic and latent replication cycles. In KS, the virus localizes to tumor progenitor endothelial cells, most of which are latently infected. In cell culture, KSHV replication is generally studied using B-cell lines, such as BCBL-1, generated from primary effusion lymphoma material. Most BCBL-1 cells are latently infected, although there is some spontaneous virus reactivation. Addition of chemical inducers such as sodium n-butyrate, 12-O-tetradecanoylphorbol-13-acetate (TPA), and valproic acid (VA) to these cells efficiently induces the lytic cycle and produces virions. KSHV ORF57 protein predominantly localizes to the nucleus and can shuttle between the nucleus and cytoplasm. Most HSV-1 genes are unspliced; by contrast, ORF57 is spliced gene; the protein is 455 amino acids in length and 50kDa in size.
Synonyms:	rabbit anti-KSHV ORF57 antibody, MTA, human herpesvirus 8 protein
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ORF57
Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the C-terminal of human KSHV ORF57 protein.
Purity/Specificity:	This affinity purified antibody is directed against human herpesvirus 8 (KSHV ORF57) protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with ORF57 protein from human herpesvirus 8 types P and M sources based on 94% homology with the immunizing sequence. Reactivity against homologues from other sources is unknown.
Relevant Links:	• UniProtKB - Q2HR75 • NCBI - YP_001129410.1 • GeneID - 4961525

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band 50-55 kDa in size corresponding to KSHV ORF57 protein by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:100,000 – 170,000
IHC:	User Optimized
WB:	1:5,000 - 1:8,000

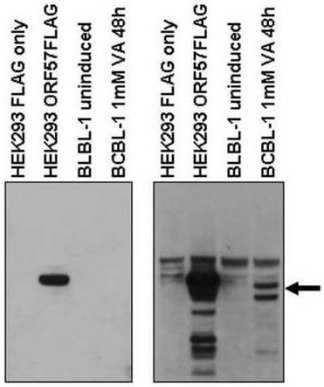
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.55 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western blot using Rockland's affinity purified anti-KSHV ORF57 to detect KSHV ORF57 in HEK293 cells transfected with ORF57 expression vector and ORF57 truncations, or in KSHV infected B-cell line (BCBL-1) treated with or without valproic acid to induce viral replication (arrow). The membrane was probed with the primary antibody diluted 1:7,500 (left) and 1:1,000 (right). Personal Communication, V. Majerciak, M.Zheng, CCR-NCI, Bethesda, MD.

References

- Majerciak V et al. A KSHV RNA-binding protein promotes FOS to inhibit nuclease AEN and transactivate RGS2 for AKT phosphorylation. *mBio.* (2025)

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