

Anti-KSHV ORF57 (RABBIT) Antibody
KSHV ORF57 Antibody
Catalog # ASR5441**Specification**

Anti-KSHV ORF57 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
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.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
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.
Preservative	0.01% (w/v) Sodium Azide

Anti-KSHV ORF57 (RABBIT) Antibody - Additional Information**Gene ID** 4961525**Other Names**
4961525**Purity**

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.

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.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-KSHV ORF57 (RABBIT) Antibody - Protein Information**Name** ORF57**Function**

Post-transcriptional regulator that plays an essential role in the expression of viral lytic genes and productive viral replication. Possesses numerous activities that promote the expression of viral genes including enhancement of RNA stability, promotion of RNA splicing and stimulation of protein translation often via its ability to interact with different cellular cofactors. Stabilizes polyadenylated nuclear (PAN) RNA by cooperative binding to a 9-nt core of the MRE (MTA responsive element) together with host PABPC1 (PubMed:23077296). Functions as a viral splicing factor and promotes expression of intron-containing viral lytic genes (PubMed:18184716). Protects viral transcripts from specific nuclear RNA decay pathways by preventing host MTREX recruitment that promotes unwinding and degradation of structured RNA substrates (PubMed:30785952). Plays a role in the inhibition of host P-body formation by altering the scaffolding activity of TNRC6A at the initial stage thereby enhancing virus production (PubMed:31400113). Also inhibits host stress granule formation by blocking autophosphorylation of EIF2AK2/PKR and its subsequent binding to dsRNA (PubMed:29084250).

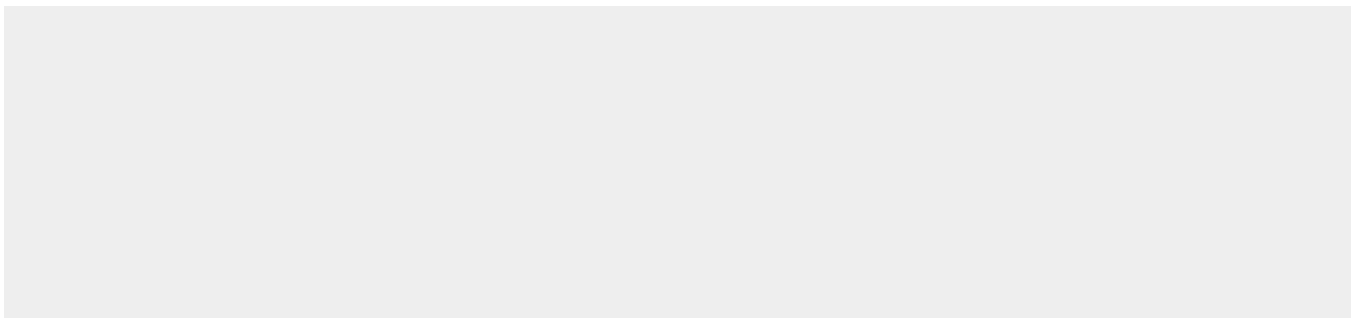
Cellular Location

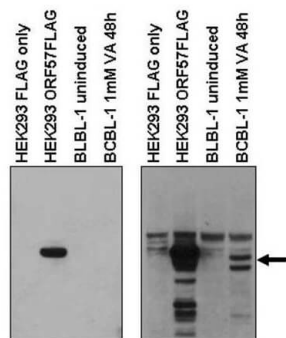
Host cytoplasm. Host nucleus Note=Distributes in host nuclear splicing speckles

Anti-KSHV ORF57 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-KSHV ORF57 (RABBIT) Antibody - Images



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.

Anti-KSHV ORF57 (RABBIT) Antibody - 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.