

Product Data Sheet

Cat # RP-348

Recombinant Epstein-Barr Virus (HHV-4) Early Antigen

**Size:** 100 ug

The Epstein-Barr virus (EBV), also called Human herpes virus 4 (HHV-4), is a virus of the herpes family (which includes Herpes simplex virus and Cytomegalovirus). On infecting the B-lymphocyte, the linear virus genome circularizes and the virus subsequently persists within the cell as an episome. The virus can execute several distinct programs of gene expression which can be broadly categorized as being lytic cycle or latent cycle. The lytic cycle or productive infection results in staged expression of a host of viral proteins with the ultimate objective of producing infectious virions. Formally, this phase of infection does not inevitably lead to lysis of the host cell as EBV virions are produced by budding from the infected cell. The latent cycle (lysogenic) programs are those that do not result in production of virions. A very limited, distinct set of viral proteins are produced during latent cycle infection. These include Epstein-Barr nuclear antigen (EBNA)-1, EBNA-2, EBNA-3A, EBNA-3B, EBNA-3C, EBNA-leader protein (EBNA-LP) and latent membrane proteins (LMP)-1, LMP-2A and LMP-2B and the Epstein-Barr encoded RNAs (EBERs). Immunoreactive with sera of EBV-infected individuals.

**Usage:** This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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**Source:** The E. coli derived 35.5 kDa recombinant protein contains the HHV-4 Early Antigen C-terminus regions amino acids 306-390. EBV-Ea was purified by proprietary chromatographic technique. 50mM Tris-HCl, 10mM glutathione, 60mM NaCl, 0.5% sarcosyl and 50% glycerol.

**Applications and Suggested Dilutions:** EBV-Ea protein is >95% pure as determined by 10% PAGE (Coomassie staining). EBV-Ea antigen is suitable for ELISA and Western blots, excellent antigen for detection of HHV-4 (EBV) with minimal specificity problems. Users must optimize the appropriate concentrations and conditions for each assay.

**Storage and Stability:** EBV-Ea protein is shipped at ambient temperature. Upon arrival, store at -20°C. Five years frozen. One month in solution at room temperature. If supplied in powder then reconstitute it in 100 µl water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.