



Anti-Vaccinia virus H3L, Rabbit-Polyclonal Antibody

Catalog No. GB-10432

Antigen species: Vaccinia virus

Host species: Rabbit

Quantity: 100µg

Reactivity: Vaccinia virus

Form: Peptide affinity purified antibody

Applications: ELISA

Target description

Vaccinia virus is a large DNA virus with a genome of ~191 kb encoding 260 open reading frames (ORFs) that is a close relative of variola virus (1). Vaccinia virus morphogenesis is a complex process which occurs in the cytoplasm of infected cells and results in the formation of the intracellular mature virus (IMV) and the intracellular enveloped virus (IEV) (2). The IMV core contains five major protein, A3L, A4L, and A10L (3), while 12 proteins, A12L, A13L, A14L, A14.5L, A17L, A27L, D8L, G4L, G7L, H3L, I5L and L1R, are associated with the membranes around the virus particle (4).

The vaccinia virus H3L open reading frame encodes a 324-amino-acid immunodominant membrane component of virus particles. Biochemical and microscopic studies demonstrated that the H3L protein was expressed late in infection, accumulated in the cytoplasmic viral factory regions, and associated primarily with amorphous material near immature virions and with intracellular virion membranes (5).

Antigen

This polyclonal antibody was raised by immunizing rabbit with synthetic vaccinia virus H3L peptide.

Application

The antibody specificity was assayed by ELISA with the synthetic vaccinia virus H3L peptide. The antibody titer is more than 9000K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/1000 dilution for ELISA, 1/500 dilution for Western blot analysis (WB) of recombinant protein, 1/400 dilution for tissue extracts or cell lysates, 1/100 dilution for immuno-histochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-14K vaccinia Virus fusion protein pAb (GB-10396).
2. Anti-14K vaccinia Virus fusion protein pAb (GB-10397).

Ab dilution	Pre-Bleed	Purified-Ab
1:10,000	0.086	1.122
1:100,000	0.084	0.596
1:1,000,000	0.091	0.305
1:10,000,000	0.081	0.178
Titer		9718 K

ELISA Protocol

Antigen is coated on EIA strips at 1µg per well. Add 200µl of blocking buffer and then wash wells with PBST buffer. Antiserum and purified Ab of GB-10432 is diluted in series as $10^4 \sim 10^7$ folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody titer is defined as maximal dilution with >0.1 of ABS of antiserum minus pre-bleed serum.

Storage

It is supplied as peptide antigen affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/mL (1x PBS). Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

References

1. Massung, R.F., Esposito, J.J., Liu, L.I., Qi, J., Utterback, T.R., Knight, J.C., Aubin, L., Yuran, T.E., Parsons, J.M., Loparev, V.N., et al. Potential virulence determinants in terminal regions of variola smallpox virus genome. *Nature*, 366, 748-751, 1993.
2. Sodeik, B., Doms, R.W., Ericsson, M., Hiller, G., Machamer, C.E., van 't Hof, W., van Meer, G., Moss, B., Griffiths, G. Assembly of vaccinia virus: role of the intermediate compartment between the endoplasmic reticulum and the Golgi stacks. *J Cell Biol.* 1993 May; 121(3):521-41.
3. Jensen, O.N., Houthaeve, T., Shevchenko, A., Cudmore, S., Ashford, T., Mann, M., Griffiths, G. and Krijnse, L.J. Identification of the major membrane and core proteins of vaccinia virus by two-dimensional electrophoresis. *J. Virol.*, 70, 7485-7497, 1996.
4. Betakova, T., Wolffe, E.J. and Moss, B. The vaccinia virus A14.5L gene encodes a hydrophobic 53-amino-acid virion membrane protein that enhances virulence in mice and is conserved among vertebrate poxviruses. *J. Virol.*, 74, 4085-4092, 2000.