ALPHA DIAGNOSTIC INTERNATIONAL

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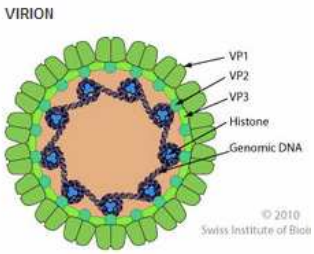
Product Specification Sheet

Anti- Polyomavirus (KV) Capsid Protein 1 (KVP-VP1) Antibodies and Controls

☐ **Cat #** KVP15-R-10 Recombinant Purified Polyomavirus Capsid Protein 1 (KVP-1) **SIZE**: 10 ug

Animals, just like humans, are susceptible to various bacterial and viral infections. Animals are used widely in biomedical research. Laboratory animal infections may compromise the health of the animals and ultimately the research data derived from them. Microbial infections alter not only the animal behavior but also the biological responses. Apart from the use of whole animals for experimentations, numerous animal cell lines and proteins are also derived from animals and used in biomedical research. Animals or animal-derived products are transported from one part of the world to another in a matter of days. So there is great potential for the diseases to spread very quickly. Many infections are asymptomatic and without any overt clinical symptoms. Detection of microbial infections has relied largely on serological screening and presence of microbial antigens or antibodies.



Mouse polyomavirus a member of the family Papovaviridae. It is a dsDNA virus. It has been shown to cause asymptomatic infections in laboratory and wild mice. The virus is one of the few tumor viruses amendable to study in its natural host. When inoculated as newborns, mice of certain genetic backgrounds develop an array of solid tumors arising from at least a dozen distinct cell types. By 3-4 months of age, individual animals typically bear tumors of multiple types and with a combined tumor mass that may approach 25% or more of total body weight. PyV is antigenically different from the K virus (aka pneumotropic Kilham strain). The viruses are distinct from each other after examination with six different restriction endonucleases which revealed no similarities between both DNAs. Studies indicate there is no homology between PyV and the Kilham mouse polyoma virus. Mouse polyoma virus KV strain (mouse pnuemotropic virus or myotis polyoma virus) VP1 (373-aa, protein accession # P24595-1) is highly antigenic protein..

Storage

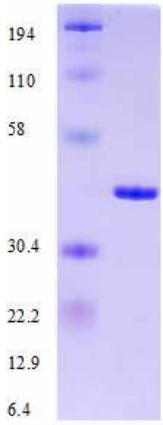
Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Source of Antigen



KVP-VP1 was expressed in E. Coli as his-tag fusion protein (full length, purity >95%, ~65 KDa). Purified protein is supplied in 50 mM Tris, pH 8, 0.25M NaCl, 5mM beta-mercaptoethanol,, 0.5mM ETDA, 0.25M imidzazole, and 8M Urea (or see lot sp. conc on the vial).

It is suitable for ELISA, Western or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

Recommended Usage

Western Blotting: load 100-200 ng/well.

ELISA (50-100 ng antigen/well).

Specificity & Cross-reactivity

KVP-VP1 murine polyoma virus has high sequence homology with VP1 proteins of pneumotropic virus (88%), mastomys polyoma virus (71%), and squirrel monkey. human, bovine, and hamster polyoma viruses (54-58%). Therefore, anti-murine polyoma virus (#KRV14-S) may potentially crossreacts with VP1 of these related viruses.

References: Schoolermark-van de ven EME (2005) Lab. Animals 40, 137-143; Mayer M (1991) Virology 181, 469-480; Bond S (1978) J. Virol. 28, 337-343;

*This product is for In vitro research use only.

Related material available from ADI

Catalog#	ProdDescription
KVP11-MNC	Mouse Anti-Polyomavirus (KV, Pneumotropic virus) Capsid Protein 1 (VP1) antibody negative control
KVP11-MPC	Mouse Anti-Polyomavirus (KV, Pneumotropic virus) Capsid Protein 1 (VP1) antibody Positve control serum
KVP12-RNC	Rat Anti-Polyomavirus (KV, Pneumotropic virus) Capsid Protein 1 (VP1) antibody negative control serum
KVP12-RPC	Rat Anti-Polyomavirus (KV, Pneumotropic virus) Capsid Protein 1 (VP1) antibody Positive control serum
KVP14-C	Recombinant (E. coli, his-tag, ~42 Kda) Mouse Polyoma Virus (KV, Pneumotropic virus) Capsid Protein 1 (VP1) control for Western blot
KVP14-S	Rabbit Anti-Polyomavirus (KV, Pneumotropic virus) Capsid Protein 1 (VP1) antiserum
KVP15-R-10	Recombinant (E. coli, his-tag, ~42 Kda) Mouse Polyoma Virus (KV, Pneumotropic virus) Capsid Protein 1 (VP1), full length (>95% pure)

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com