Anti-HIV1 p24 Antibody [PS01-31] - BSA and Azide free (Detector)

HA721528

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	HIV1
Applications:	ELISA(Det)
Clone number:	PS01-31

Description: One distinctive HIV antigen is a viral protein called p24, a structural protein that makes up most of the HIV viral core, or 'capsid'. There are approximately 2000 molecules per virus particle, or at a molecule weight of 24 kDa, about 104 virus particles per picogram of p24. The onset of symptoms of AIDS correlates with a reduction in the number of CD4+ T-cells and increased levels of virus and p24 in the blood. It is a component of the gag polyprotein. High levels of p24 are present in the blood serum of newly infected individuals during the short period between infection and seroconversion, making p24 antigen assays useful in diagnosing primary HIV infection. Antibodies to p24 are produced during seroconversion, rendering p24 antigen undetectable after seroconversion in most cases. Therefore, p24 antigen assays are not reliable for diagnosing HIV infection after its very earliest stages. Fourth-generation HIV immunoassays detect viral p24 protein in the blood (as well as patient antibodies against the virus). Previous generation tests relied on detecting patient antibodies alone; it takes about 3–4 weeks for the earliest antibodies to be detected. The p24 protein can be detected in patient blood as early as 2 weeks after HIV infection, further reducing the window period necessary to accurately detect the HIV status of the patient.

Immunogen: Recombinant protein within HIV1 p24 protein aa 133-363.

Positive control: Recombanint HIV1 p24 protein.

Subcellular location: Virion.

Database links: SwissProt: P12497 HIV1

Recommended Dilutions:

ELISA(Det)	0.2g/ml

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

Fig1: Advantages of Using rAbs：
Increased Reproducibility
Because recombinant antibody production involves sequencing the antibody light and heavy chains, recombinant antibody production allows researchers more control over the antigen.
Ease of Scalability and Continuous Supply
In vitro methods for producing antibodies are amenable to large-scale production, meaning antibody availability is unlikely to become a limiting factor. Recombinant antibodies can be produced in weeks as opposed to months.
Animal-Free Tech
Once the antibody-producing genes are isolated, high-throughput in vitro manufacture can be implemented. This eliminates the numerous ethical and animal welfare concerns commonly associated with traditional monoclonal antibody production.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Chukkapalli V. et al. Evidence in support of RNA-mediated inhibition of phosphatidylserine-dependent HIV-1 Gag membrane binding in cells. J. Virol. 87:7155-7159(2013).
2. Saad J.S. et al. Structural basis for targeting HIV-1 Gag proteins to the plasma membrane for virus assembly. Proc. Natl. Acad. Sci. U.S.A. 103:11364-11369(2006).