

## Anti-HIV1 p24 Antibody [12G2] - BSA and Azide free (Detector)

# HA600009



<b>Product Type:</b>	Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	HIV1
<b>Applications:</b>	ELISA(Det), WB
<b>Molecular Wt:</b>	Predicted band size: 24 kDa
<b>Clone number:</b>	12G2

**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 (Catalog#HA210278).

**Positive control:** Recombinant HIV1 p24 protein.

**Subcellular location:** Virion.

**Database links:** SwissProt: P12497 HIV1

**Recommended Dilutions:**

<b>ELISA</b>	5-20 ng/ml
<b>WB</b>	1,000-1:5,000

**Storage Buffer:** 1\*TBS (pH7.4).

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

**Purity:** Protein G affinity purified.

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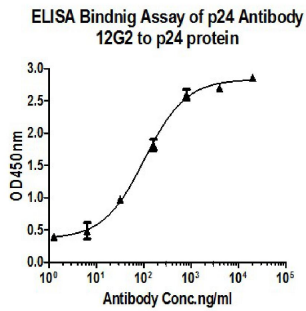
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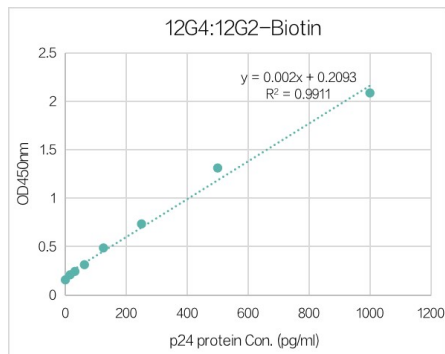
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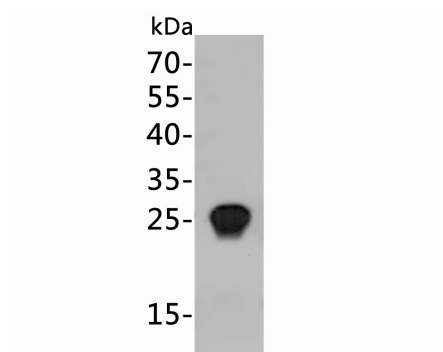
## Images



**Fig1:** The binding activity of HA600009 with HIV1 p24 protein. Immobilized HIV1 p24 protein at 1 µg/ml overnight at 4°C. Then blocked with 1% BSA for 1 hour at 37°C, and incubated with the primary antibody (HA600009) for 1 hour at 25°C. The EC<sub>50</sub> of HA600009 is 105 ng/ml.



**Fig2:** This antibody will detect HIV1 p24 protein in ELISA pair set (Cat: # HA600009). In a sandwich ELISA, it can be used as Detect antibody when paired with (Cat: # HA600010).



**Fig3:** Western blot using anti-HIV1 p24 protein antibody shows detection of a 25 kDa band corresponding to Recombinant HIV1 p24 protein.

**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).

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