# Overview

**Product name**: Anti-HIV1 p24 antibody [39/5.4A] ab9071

**Description**: Mouse monoclonal [39/5.4A] to HIV1 p24

**Host species**: Mouse

**Specificity**: Human Immunodeficiency Virus Type 1 (HIV-1) p24 protein. No detectable reaction has been observed with HIV-2 or SIV viral lysates by ELISA or Western blot.

**Tested applications**: Suitable for: WB, Radioimmunoprecipitation, ELISA, ICC/IF, Sandwich ELISA

**Immunogen**: Tissue, cells or virus corresponding to HIV1 p24. ab9071 raised by immunizing BALB/c mice with purified HIV-1 (Strain IIIB) lysate.

**General notes**: ab9071 is used to detect HIV-1 core protein in virus infected cells, cell lysates, culture fluid, serum or plasma.

## Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>Constituent: PBS</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein G purified</td>
</tr>
<tr>
<td><strong>Purification notes</strong></td>
<td>Purified from serum-free culture supernatant.</td>
</tr>
<tr>
<td><strong>Primary antibody notes</strong></td>
<td>The antibody is used to detect HIV 1 core protein in virus infected cells as well as in viral or infected cell lysates. Studies on core antigen synthesis and metabolism can be performed using Western blotting or radiolabeled precipitation analysis. Useful as solid phase for capture of p24 in an antigen ELISA format.</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>39/5.4A</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG1</td>
</tr>
</tbody>
</table>

## Applications

Our Abpromise guarantee covers the use of ab9071 in the following tested applications.
HIV-1 performs highly complex orchestrated tasks during the assembly, budding, maturation and infection stages of the viral replication cycle. During viral assembly, the proteins form membrane associations and self-associations that ultimately result in budding of an immature virion from the infected cell. Gag precursors also function during viral assembly to selectively bind and package two plus strands of genomic RNA. Capsid protein p24 probably forms the conical core of the virus that encapsulates the genomic RNA-nucleocapsid complex.

**Cellular localization**

Membrane

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviws</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 - 10 µg/ml. ab9071 exhibits reactivity with viral lysates by Western blot</td>
</tr>
<tr>
<td>Radioimmunoprecipitation</td>
<td></td>
<td>Use at an assay dependent concentration. The antibody immunoprecipitates p24 protein from radiolabeled infected cell extracts.</td>
</tr>
<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration. ab9071 is especially useful as a solid phase adsorbent or detector antibody in an ELISA format.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 1 - 10 µg/ml. Exhibits reactivity with HIV-1 infected cultures using indirect immunofluorescence.</td>
</tr>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Mouse monoclonal [39/6.14] to HfV1 p24 (ab9072).</td>
</tr>
</tbody>
</table>

**Target**

HIV-1 performs highly complex orchestrated tasks during the assembly, budding, maturation and infection stages of the viral replication cycle. During viral assembly, the proteins form membrane associations and self-associations that ultimately result in budding of an immature virion from the infected cell. Gag precursors also function during viral assembly to selectively bind and package two plus strands of genomic RNA. Capsid protein p24 probably forms the conical core of the virus that encapsulates the genomic RNA-nucleocapsid complex.

**Images**

Immunoblot analysis of viral proteins in HEK293-derived cells transiently transfected with the proviral plasmid, pNL4-3. EV or POM121C (614–987) cells were transfected with 1.0 µg of pNL4-3. The cells were harvested 48 h post-transfection and lysates were subjected to immunoblot analyses with anti-HIV-1 p24 (top panel; the upper arrow indicated precursor Gag [PrGag], the lower arrow indicated CA), anti-HA (middle panel) and anti-CYPA (bottom panel). One representative set of results from three independent experiments is shown.

Whole-cell lysates were prepared as follows: cells were washed twice with phosphate-buffered saline (PBS) (-), suspended in PBS(-) (500 µl per 1 × 10⁷ cells) and mixed with an equal volume of 2 × sample buffer (4% sodium dodecyl sulfate, 125 mM Tris-HCl, pH 6.8, 10% 2-mercaptoethanol, 10% glycerol, and 0.002% bromphenol blue). Proteins were solubilized by heating for 5 min at
95°C. Samples were subjected to SDS-PAGE, transferred to PVDF membranes, and reacted with mouse monoclonal antibody to HIV-1 p24 (#ab9071, Abcam, Inc., Cambridge, MA), or rabbit polyclonal antibody to CYP A (#BML-SA296, Enzo Life Sciences, Inc., Farmingdale, NY). Membranes were then incubated with horseradish peroxidase-conjugated secondary antibody (#NA934 for anti-rabbit IgG, #NA931 for ant-mouse IgG, #NA933 for anti-human IgG, Amersham Biosciences, Piscataway, NJ), and proteins were visualized by Western Lightning Plus-ECL (PerkinElmer, Waltham, MA) or enhanced chemiluminescence (Pierce Biotechnology, Rockford, IL).

**Western blot - Anti-HIV1 p24 antibody [39/5.4A](ab9071)**

All lanes : Anti-HIV1 p24 antibody [39/5.4A] (ab9071) at 1/2000 dilution

Lane 1 : Mock transfected 293T cells - cell lysate
Lane 2 : 293T cells transfected with HIV DNA - cell lysate

**Secondary**

All lanes : HRP conjugated goat anti-mouse IgG

Developed using the ECL technique.

Performed under reducing conditions.

**Observed band size:** 24,25,41,55 kDa

*why is the actual band size different from the predicted?*

**Exposure time:** 5 minutes

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.
Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors