



**LD Biopharma, Inc.**  
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**Name of Product:** Recombinant HIV-1 p24 Protein  
**Catalog Number:** VRP-2732  
**Manufacturer:** LD Biopharma, Inc.

## Introduction

HIV-1 p24 is protein fragment with 231aa, which was generated from HIV-1 Gag precursor protein processing. p24, as a vital early secreting antigen in blood or transduced cells (such as lantiviral packaging), it could be used for diagnosing human immunodeficiency virus (HIV) infection, or monitoring lantiviral packaging efficient by simple detection of p24 concentration in the testing samples.

Full-length HBxAg cDNA (231aa, which is derived from HIV-1 Gag protein 133 -363 aa) was constructed with codon optimization gene synthesis and expressed with N-terminal T7-His-TEV cleavage site tag (29aa) in *E.coli* as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

<b>Gene Symbol:</b>	HIV-1 p24
<b>Accession Number:</b>	AF324493
<b>Species:</b>	HIV-1
<b>Size:</b>	40 µg / Vial
<b>Composition:</b>	0.4 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, DTT and sucrose.
<b>Storage:</b>	In liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

## Key References

Cunzhen Wang. et al., ***Amine-aldehyde chemical conjugation on a potassium hydroxide-treated polystyrene ELISA Surface for nanosensing an HIV-p24 antigen.*** Nanoscale Research Letters. 14:21. <https://doi.org/10.1186/s11671-018-2848-z> . (2019)

Larijani MS. et al., ***In Silico Design and Immunologic Evaluation of HIV-1 p24-Nef Fusion Protein to Approach a Therapeutic Vaccine Candidate.*** Curr HIV Res. 16(5): 322-337. (2018)



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Becker Y. *HIV-1 protein in infected cells determine the presentation of viral peptides by HLA class I and class II molecules and the nature of the cellular and humoral anti-viral immune responses – a review*. Virus Genes. Jul: 8(3): 249-270. (1994)

Kutner RH. et al., *Production, concentration and titration of pseudotyped HIV-1 based lentiviral vector*. Nat Protoc. 4(4): 495-505. (2009)

## Applications

- Highly purified HIV-1 p24 antigen, which could be used for specific antibody production, or ELISA testing.

## Quality Control:

1. Purity: > 93 % by SDS-PAGE.

## Recombinant HIV-1 p24 Protein Sequence. ( 28.8 kD )

MASMTGGQQMGRGHHHHHHENLYFQGGEFPIVQNIQGQMVHQAI SPRTLNAWVKVVEEKAFSPE  
VIPMFSA LSEGATPQDLNTMLNTVGGHQAAMQMLKETINEEAAEWDRVHPVHAGPIAPGQMREP  
RGSDIAGTTSTLQE QIGWMTNNPPI PVGEIYKRWII LGLNKIVRMYSPTSILDIRQGPKEPFRD  
YVDRFYKTLRAEQASQEVKNWMTETLLVQNANPDCKTILKALGPAATLEEMMTACQGVGGPGHK  
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