

HIV-1 Gag p17

05-003 20 µg, 05-004 100 µg

HIV-1 Gag p17 is the matrix protein of AIDS virus, HIV-1, and is produced by digestion of its precursor Gag p55 by HIV-1 protease. This protein is indispensable for reproduction of AIDS virus and is essential component of AIDS virus particles (1).

This protein was over-expressed as a recombinant protein in *E. coli* with a plasmid carrying the Gag p17 coding region of HIV-1 virus, subtype B (2), and was highly purified by several steps of chromatography (3). Its molecular weight is 17 kD, same as that of p17 purified from AIDS virus particles (Fig 1).

Applications

- 1) It can be used as p17 antigen in detection of anti-HIV-1 p17 antibody in Western blotting or ELISA.
- 2) It can be used as a standard for quantitative analysis of HIV-1 p17 antigen.
- 3) It can be used in studies of structure and function of AIDS virus as a matrix protein that constitutes HIV-1 core.

Specification

Purity: Over 90% by SDS-PAGE (CBB staining)

Protein concentration: 0.5 mg/ml as measured by BCA method

Form: 50% glycerol, 20mM Tris-HCl (pH7.5), 50mM NaCl, 10mM mercaptoethanol

Storage: -20°C

Data Link GenBank: [AAA44988.1](https://www.ncbi.nlm.nih.gov/nuclot/AAA44988.1)

References

1. Freed EO "HIV-1 gag proteins: diverse functions in the virus life cycle." *Virology* **251**:1-15 (1998) PMID: [9813197](https://pubmed.ncbi.nlm.nih.gov/9813197/)
2. Adachi A *et al*" Production of acquired immunodeficiency syndrome-associated retrovirus in human and nonhuman cells transfected with an infectious molecular clone." *J. Virol.* **59**: 284-291(1986) PMID: [3016298](https://pubmed.ncbi.nlm.nih.gov/3016298/)
3. Saito A *et al*"Overproduction, purification, and diagnostic use of the recombinant HIV-1 Gag proteins, the precursor protein p55 and the processed products p17, p24, and p15." *Microbiol. Immunol.* **39**:473-483 (1995) PMID: [8569532](https://pubmed.ncbi.nlm.nih.gov/8569532/)

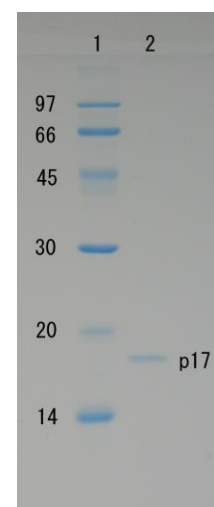


Fig.1 Polyacrylamide gel electrophoresis of HIV-1 p17 protein