HIV-1 Gag p24

05-006 250 μg

HIV-1 Gag p24 is a capsid protein that constitutes the core of AIDS virus HIV-1 and is processed by the digestion of its precursor Gag p55 by HIV-1 protease. This protein is indispensable to the reproduction of AIDS virus and constitutes an essential element in the virus particle construction (1). As this protein is detectable from the early stage of AIDS virus infection, it is used as a marker for observation of the development in the patient's condition after treatment, as it indicates the amount of virus in the blood.

The product is over-expressed as a recombinant protein in *E. coli* with a plasmid carrying the Gag p24 coding region of HIV-1 virus, subtype B (2), and highly purified by several steps of chromatography (3). Its molecular weight is 24 kD, same as that of p24 purified from AIDS virus particles (Fig 1).

Usage

1) It can be used as standard in the titration of p24 antigens as it indicates the AIDS virus amount in virus infection, diagnosis and treatment progress.
2) It can be used as p24 antigen in detection of anti-HIV-1 p24 antibody in Western blotting or ELISA.
3) It can be used in studies of structure and function of AIDS virus as a capsid protein that constitutes HIV-1 core.

Specification

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

Protein concentration: 0.25 mg/ml as measured by BCA method

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

Storage: -20℃

Reference:

1. Freed EO, Virology 251:1-15 (1998) Review
2. Adachi A, et al., J. Virol. 59, 284 (1986)
3. Tanaka N, et al., Microbiol. Immunol. 36:823-831 (1992)

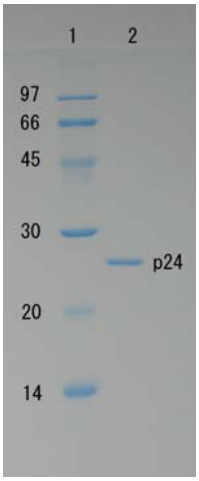

Fig. 1 Polyacrylamide gel electrophoresis of HIV-1 p24 protein