

HIV-1 Gag p55

05-009 20 µg, 05-010 100 µg

HIV-1 Gag p55 is a precursor protein of several proteins that form the core structure of AIDS virus, indispensable to its reproduction. This protein is digested by HIV-1 protease, first into intermediate products p41 and p15. Then p41 is digested into matrix protein p17 and capsid protein p24. Protein p15 is further digested into nucleocapsid protein p7 and to p6 and p1, both of unknown function (1).

The product is over-expressed as a recombinant protein in *E. coli* with a plasmid carrying the Gag p55 coding region of HIV-1 virus, subtype B (2), and highly purified by several steps of chromatography (3). Its molecular weight is 55 kD, same as that of p55 purified from AIDS virus particles (Fig 1). The protein bands at lower positions are degradation products of p55 which could not be separated during purification steps.

Usage

- 1) It is most suitable to be used as substrate for the HIV-1 protease activity assay.
- 2) It can be used in detection of anti-HIV-1 Gag antibody in Western blotting or ELISA.

All the anti-HIV-1 Gag antibodies such as anti-p17 antibody, anti-p24 antibody and anti-p15 antibody can be measured at the same time.

Specification

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

Protein concentration: 0.44 mg/ml as determined by BCA method.

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

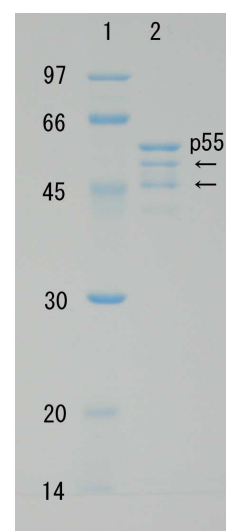
Storage: -20°C (longer period, -70°C)

Reference:

1. Freed EO, Virology 251:1-15 (1998) Review
2. Adachi A, et al., J. Virol. 59, 284 (1986)
3. Saito A, et al., Microbiol. Immunol. 39:473-483 (1995)

Fig. 1 Polyacrylamide gel electrophoresis of HIV-1 p55 protein

(The arrows show degradation products)



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