

HIV-1 Gag p15

Cat. #05-007 (20 µg); #05-008 (100 µg)

Description

HIV-1 Gag p15 is processed by the digestion of its precursor Gag p55 by HIV-1 protease. This protein is further digested into nucleocapsid protein p7 and into p6 and p1 of unknown function. This digestion is promoted by the binding of HIV-1 genome RNA and the two Zn finger motifs that exist in the p7 region. The produced nucleocapsid protein p7 regulates the RNA function by directly binding to HIV-1 genome RNA (1).

The product is over-expressed as a recombinant protein in *E. coli* with a plasmid carrying the Gag p15 coding region of HIV-1 virus, subtype B(2), and highly purified by several steps of chromatography (3). Its molecular size is 15 kD, same as that of p15 purified from HIV-1 viral particles (Fig 1).

Usage

- It can be used as a substrate for HIV-1 protease in the presence of HIV-1 genomic RNA.
- It can be used in studies of structure and function of HIV-1 as the precursor of nucleocapsid p7 protein that binds to HIV-1 genome RNA.
- It can be used as p15 antigen in detection of anti-HIV-1 p15 antibody in Western blotting or ELISA.
- It can be used as standard for the quantitative analysis of HIV-1 p15 antigen.

Specification

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

Protein concentration: 0.42 mg/ml as measured by BCA method

Form: 50% glycerol, 20 mM Tris-HCl (pH 7.5), 50 mM NaCl, 10 mM mercaptoethanol

Storage: -20 °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 p15 protein

