

HIV-1 Nef

05-012

250 µg

HIV-1 Nef is one of the accessory proteins synthesized in the early stage of AIDS virus reproduction and is abundantly found in infected cells. The name derives from its negative factor thought at the beginning but presently it is remarked as the protein which bears a most distinctive biological characteristic of AIDS virus (1). The protein interacts directly with the signal transduction protein of the host T cell and works effectively on AIDS infection or on long term survival of the infected cells or induces apoptosis of non-infected cells (2). It is also involved in the endocytosis and degradation of receptor protein of the cell surface such as CD4 and MH4, important for AIDS virus infection.

The product is over-expressed as a recombinant protein in *E. coli* with a plasmid carrying the *nef* gene of HIV-1 virus, subtype B (3) and highly purified by several steps of chromatography. Its molecular size is 27kD, same as that of Nef purified from AIDS virus particles (Fig 1).

Usage

- 1) For functional studies of HIV-1 Nef protein.
- 2) Used as standard for the titration analysis of HIV-1 Nef antigen.
- 3) It can be used as Nef antigen in detection of anti-HIV-1 Nef antibody by Western blotting or ELISA.

Specification

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

Protein concentration: 0.48 mg/ml as determined by BCA method

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

Storage: -20°C

References:

1. Arora VK, et al., *Micorb. Infect.* 4:189-199 (2002) Review
2. Fackler OT, and Baur AS, *Immunity* 16:493-497 (2002) Review
3. Adachi A, et al., *J. Virol.* 59, 284 (1986)

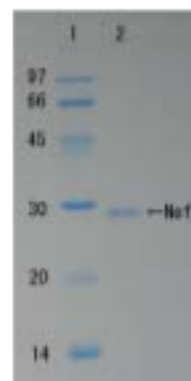


Fig. 1 Polyacrylamide gel electrophoresis of HIV-1 Nef protein.