Recombinant HIV nef protein, β-gal-tagged

Cat. No. nef-176H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The E.coli derived 20kDa recombinant protein genotype IIIB is a non-glycosylated polypeptide chain, containing the HIV-1 nef immunodominant regions, 3-190 amino acids. The HIV-1 nef is fused to beta-galactosidase (114kDa) at the N-terminus.
Species	HIV
Source	E.coli
ProteinLength	3-190 amino acids
Description	Human immunodeficiency virus (HIV) is a retrovirus that can lead to a condition in which the immune system begins to fail, leading to opportunistic infections. HIV primarily infects vital cells in the human immune system such as helper T cells (specifically CD4+ T cells), macrophages and dendritic cells. HIV infection leads to low levels of CD4+ T cells through three main mechanisms: firstly, direct viral killing of infected cells; secondly, increased rates of apoptosis in infected cells; and thirdly, killing of infected CD4+ T cells by CD8 cytotoxic lymphocytes that recognize infected cells. When CD4+ T cell numbers decline below a critical level, cell-mediated immunity is lost, and the body becomes progressively more susceptible to opportunistic infections. HIV was classified as a member of the genus Lentivirus, part of the family of Retroviridae. Lentiviruses have many common morphologies and biological properties. Many species are infected by lentiviruses, which are characteristically responsible for long-duration illnesses with a long incubation period. Lentiviruses are transmitted as single-stranded, positive-sense, enveloped RNA

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	viruses. Upon entry of the target cell, the viral RNA genome is converted to double-stranded DNA by a virally encoded reverse transcriptase that is present in the virus particle. This viral DNA is then integrated into the cellular DNA by a virally encoded integrase so that the genome can be transcribed. Once the virus has infected the cell, two pathways are possible: either the virus becomes latent and the infected cell continues to function, or the virus becomes active and replicates, and a large number of virus particles are liberated that can then infect other cells.
Form	Sterile filtered colorless clear solution. HIV-1 nef protein solution in 8M urea, 20mM Tris-HCl pH 8.0, 10mM b-mercaptoethanol.
Molecular Mass	20kDa
AA sequence	kwskssvigwptvrermrraepaadgvgaasqdlekhgaitssntaatnadcawleaqeeeevgfpvtpqvplrpmtykaavdlshflkekggleglihsqrrqdildlwiyhtqgyfpdwqnytpgpgirypltfgwcyklvpvepekleeankgentsllhpvslhgmddperevlewrfdsrla.
Purity	Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.
Applications	HIV-1 nef antigen in ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.
Usage	The products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
Stability	HIV-1 nef although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.
Specificity	HIV-1 nef is immunoreactive with all sera of HIV-1 infected individuals.

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Shipping	Ice Packs

GENE INFORMATION

Gene Name	nef p27 [Human immunodeficiency virus 1]
Official Symbol	nef
Synonyms	nef; p27
Gene ID	156110
Protein Refseq	NP_057857.2
UniProt ID	P04601

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