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Recombinant HIV-1 Tat Clade B C31A-C34A Mutant

REP0062
50µg

Description

The redox state of cysteine-rich region of tat protein is known to play a crucial role in tat biological activity. The cysteine-rich region, encompassing seven cysteine residues, is highly conserved among the different HIV-1 strains and isolates. Its redox state is known to be important for protein function and activity. In particular, variations of tat cysteine motif known as "cysteine 30-cysteine 31" (C30C31) is associated with clade-specific tat neurotoxicity. Formation of tat homodimers also depends on the oxidation state of the protein, as dimerization requires metal ions binding to free sulphydryl groups present in the cysteine region. In the presence of oxygen and in absence of reducing agents, tat protein rapidly oxidises forming intra-molecular disulfide bonds which prevent the interaction with metal ions. Further, oxidation induces the formation of inter-molecular disulfide bonds causing tat multimerization and aggregation. Due to these effects, oxidation hampers or abrogates tat biological activity.

Product type

Protein

Peptide

Recombinant protein: HIV-I tat amino acidic sequence mutated in the cysteine-rich region.

Expression system

Escherichia coli

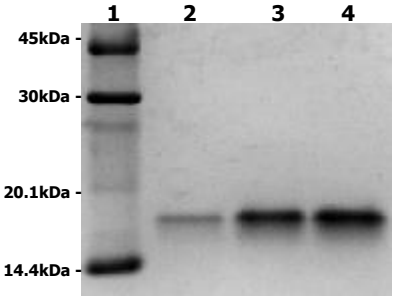
Tested by

SDS Page, Western Blotting.

Purity

>90% pure estimated by SDS-PAGE (EU Ph. 5.0 § 2.5.31)

Purified recombinant Tat CLADE B C31A-C34A mutant protein (lane 1, molecular weight standard; lane 2, 1µg; lane 3, 2.5µg; lane 4, 5µg) was separated by SDS-PAGE (14% polyacrylamide) and stained with Coomassie Blue.



Form

Lyophilized.
The protein should be reconstituted in apirogenic sterile water or PBS buffer.

Storage buffer

Preservative 0.1% glycerol.

Storage instructions

Shipped at room temperature. The lyophilized protein is stable for 24 months if stored at -20°C. The reconstituted solution must be used immediately.