

## Anti-Integrase [scFvs 135] Bulk Size Ab03530-23.0-BT

This full-length reformatted rabbit antibody was made using the variable domain sequences of the original Rabbit scFv format for improved compatibility with existing reagents assays and techniques.

**Isotype and Format:** Rabbit IgG, Kappa

**Clone Number:** scFvs 135

**Alternative Name(s) of Target:** IN protein; Gag-Pol polyprotein

**UniProt Accession Number of Target Protein:** P04585

**Published Application(s):** inhibition, neutralization, WB, ELISA

**Published Species Reactivity:** HIV-1

**Immunogen:** The original antibody was generated by immunizing rabbits from the New Zealand white strain with HIV-1 IN protein developing a combinatorial single-chain variable fragment (scFv) library against IN. The antibody was isolated by panning against immobilized HIV-1 IN protein.

**Specificity:** The antibody is specific for the catalytic and C-terminal domains of IN protein. The antibody does not bind to HIV-1 PR protein. This enzyme catalyses the integration of the HIV genome into the chromosome of the host cell. The HIV-1 IN consists of a 288 amino-acid (aa) protein (32 kDa) encoded at the 3'-end of the HIV pol gene and it contains three distinct domains: N-terminal, catalytic core, and the C-terminal.

**Application Notes:** The specificity of the original format of the antibody was confirmed by ELISA analysis. The antibody detected the HIV-1 IN protein by western blot analysis. The scFv fragment inhibited the activity of HIV-1 IN in vitro. HIV-1 replication was inhibited by the scFv localized in cytoplasm and nucleus of HeLa cells. Further, the scFv fragment specifically inhibited HIV-1 DNA integration in Hela-P4 cells. Jurkat cell lines stably expressing scFv intrabody were employed to determine whether the intracellular expression of the scFv fragment was able to prevent HIV-1 replication. Jurkat-scFv fragment cell lines showed approximately 60%–80% inhibition of HIV-1 p24 antigen production compared with the parental Jurkat cells (da Silva et al., 2012; PMID: 23586912).

**Antibody First Published in:** da Silva et al. Recombinant rabbit single-chain antibodies bind to the catalytic and C-terminal domains of HIV-1 integrase protein and strongly inhibit HIV-1 replication *Biotechnol Appl Biochem.* Sep-Oct 2012;59(5):353-66. [PMID:23586912](#)

**Note on publication:** The original paper describes the generation and characterization of the antibody.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.