



DATA SHEET

For research use only. Not for use in humans.

Reagent:	Human Immunodeficiency Virus Type 1 p51 Reverse Transcriptase Protein, Recombinant from <i>Escherichia coli</i>
Catalog Number:	ARP-2896
Lot Number:	190117
Release Category:	C
Provided:	Each vial contains approximately 25 micrograms of ARP-2896 in 50 mM Tris-HCl, pH 7.0, 25 mM NaCl, 1 mM EDTA and 50% (v/v) glycerol at a concentration of 1 mg per mL. Purity was > 85% as determined by Coomassie Blue Staining.
Description:	ARP-2896 is a full-length, human immunodeficiency virus type 1 (HIV-1) p51 reverse transcriptase (RT) subunit recombinant protein derived from a patient sample.
Special Characteristics:	ARP-2896 is produced in an <i>Escherichia coli</i> expression system and purified by immobilized affinity chromatography (IMAC) and cation exchange chromatography. This protein contains an N-terminal hexa-histidine tag and is non-glycosylated. The molecular weight of ARP-2896 is approximately 53 kilodaltons. The integrity of the protein is determined immunologically with anti-RT antibodies. It is weakly active as a DNA polymerase if salt is reduced from standard RT assay buffer. This protein can also be used for antibody production.
Recommended Storage:	ARP-2896 should be stored at -80°C or colder immediately upon arrival. Avoid freeze-thaw cycles as reagent degradation may result.
Contributor:	Dr. Stuart Le Grice
References:	<p>Howard, K. J., et al. "Reconstitution and Properties of Homologous and Chimeric HIV-1.HIV-2 p66.p51 Reverse Transcriptase." <i>J. Biol. Chem.</i> 266 (1991): 23003-23009. PubMed: 1720776.</p> <p>Jacques, P. S., et al. "Modulation of HIV-1 Reverse Transcriptase Function in "Selectively Deleted" p66/p51 Heterodimers." <i>J. Biol. Chem.</i> 269 (1994): 1388-1393. PubMed: 7507107.</p> <p>Le Grice, S. F., C. E. Cameron and S. J. Benkovic. "Purification and Characterization of Human Immunodeficiency Virus Type 1 Reverse Transcriptase." <i>Methods Enzymol.</i> 262 (1995): 130-144. PubMed: 8594344.</p> <p>Le Grice, S. F., et al. "Subunit-Selective Mutagenesis Indicates Minimal Polymerase Activity in Heterodimer-Associated p51 HIV-1 Reverse Transcriptase." <i>EMBO J.</i> 10 (1991): 3905-3911. PubMed: 1718745.</p> <p>Lederer, H., et al. "Domain Structure of the Human Immunodeficiency Virus Reverse Transcriptase." <i>EMBO J.</i> 11 (1992): 1131-1139. PubMed: 1372248.</p> <p>Schatz, O., J. Mous and S. F. Le Grice. "HIV-1 RT-Associated Ribonuclease H Displays Both Endonuclease and 3'----5' Exonuclease Activity." <i>EMBO J.</i> 9 (1990): 1171-1176. PubMed: 1691093.</p>
Citation:	Acknowledgment for publications should read "The following reagent was obtained through the NIH HIV Reagent Program, Division of AIDS, NIAID, NIH: Human Immunodeficiency Virus Type 1 p51 Reverse Transcriptase Protein, Recombinant from <i>Escherichia coli</i> , ARP-2896, contributed by Dr. Stuart Le Grice." Also include the references cited in any publications.

**Biosafety Level: 1**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories, 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:

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Note:

ARP-2896 is limited to two aliquots per lab per year. Larger amounts can be obtained upon request from the contributor.

Scientists at for-profit institutions or who intend commercial use of this reagent must contact the Director of Contracts and Tangible Assets, Email: stacy.fening@case.edu, and specify the name of the reagent and a description of the intended use, before the reagent can be released.

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