

Human Immunodeficiency Virus Type 1 Dependency CRISPR Guide Library

Catalog No. HRP-20293

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

GenScript USA Inc., Piscataway, New Jersey, USA

Product Description:

HRP-20293 is a CRISPR/Cas9 single guide RNA (sgRNA) library targeted to 525 human immunodeficiency virus type 1 (HIV-1) dependency factors cloned into the HIV-CRISPR vector (BEI Resources Catalog No. ARP-13567).^{1,2} The validated CRISPR library of guide RNAs targeting host genes is important for HIV replication across multiple strains. The library comprises 525 genes targeted by 8 guides each as well as 210 non-targeting control (NTC) guides, totaling 4,401 guides; detailed information can be found in the supplemental material for Reference 2.² Please refer to the CRISPR pooled library amplification protocols available online.^{1,3}

Material Provided:

Each vial contains a pooled plasmid DNA library in TE buffer. The DNA concentration and amount per vial are shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:

HRP-20293 was packaged aseptically in plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Human Immunodeficiency Virus Type 1 Dependency CRISPR Guide Library, HRP-20293."

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 \(BMBL\)](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

1. Emerman, M., Personal Communication.
2. Montoya, V. R., et al. "A Virus-Packable CRISPR System Identifies Host Dependency Factors Co-Opted by Multiple HIV-1 Strains." *mBio* 14 (2023): e0000923. PubMed: 36744886.
3. [CRISPR Pooled Library Amplification](#)
4. Hafer, T. L., et al. "A CRISPR Screen of HIV Dependency Factors Reveals that *CCNT1* Is Non-Essential in T Cells but Required for HIV-1 Reactivation from Latency." *Viruses* 15 (2023): 1863. PubMed: 37766271.

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