

Guide-it™ Genome-Wide sgRNA Library Transfection Mix

Catalog No.

632650 (Not sold separately)

Sold as a part of 632646

Amount

2 x 5 Vials

Lot Number

Specified on product label

Description

The Guide-it Genome-Wide sgRNA Library Transfection Mix is sold as part of our Guide-it CRISPR Genome-Wide sgRNA Library System for performing phenotypic knockout screens in human cells. There is no need to amplify the library, as each vial contains all the necessary plasmids and transfection reagents to generate self-inactivating lentiviral particles containing a complete sgRNA library targeting the entire human genome (19,000 genes). Simply resuspend the transfection mix in water and add the mixture to Lenti-X™ 293T cells to produce lentiviral particles. The sgRNA library is expressed from the U6 promoter and contains four highly active guides per gene, with guide design based on the Brunello library (Doench et al. 2016). The library backbone is the pLVXS-sgRNA-mCherry-hyg Vector, which is also included in our library system. In addition to expressing sgRNA, the sgRNA lentiviral particles also code for mCherry fluorescent protein to enable simple functional titer assays, as well as hygromycin resistance to enable selection for stably transduced cells. To improve the power of your screens, representation of the guide RNAs has been verified in both the plasmid library as well as in transduced target cell populations to be >90% within a 10-fold range.

Package Contents

- 2 x 5 Vials Guide-it Lentiviral sgRNA Library Transfection Mix (Genome-Wide)

Storage Conditions

- Store all components at –20°C upon receipt.
- Reconstitute each vial in tissue-culture-grade water immediately before use.

Shelf Life

- 1 year from date of receipt under proper storage conditions.

Shipping Conditions

- Dry ice (–70°C)

Product Documents

Documents for our products are available for download at takarabio.com/manuals

The following documents apply to this product:

- Guide-it CRISPR Genome-Wide sgRNA Library System User Manual

References

Doench, J *et al.*, Optimized sgRNA design to maximize activity and minimize off-target effects of CRISPR-Cas9. *Nat Biotechnol.* **34**, 184–191 (2016).

Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: techUS@takarabio.comUnited States/Canada
800.662.2566
(112718)Asia Pacific
+1.650.919.7300Europe
+33.(0)1.3904.6880Japan
+81.(0)77.565.6999

Certificate of Analysis

Guide-it Genome-Wide sgRNA Library Transfection Mix (Not sold separately)

Cat. No. 632650

Sold as a part of 632646

Quality Control Data

Transfection Test

Lenti-X 293T cells were transfected with plasmid DNA encoding *AcGFP1* as described in the Lenti-X Packaging Single Shots (VSV-G) Protocol-at-a-Glance. Forty-eight hours post-transfection, AcGFP1 expression was assessed by flow cytometry, and the transfection efficiency (as determined by the percentage of 293T cells expressing AcGFP1) was demonstrated to be >75%. The presence of virus particles in the supernatant of transfected cells was confirmed using Lenti-X GoStix™ Plus.

Guide RNA Representation

For each lot, guide RNA representation for all stated sgRNAs within the Guide-it sgRNA Genome-Wide Library was confirmed by NGS to be >90% within a 10-fold distribution range. A complete list of all sgRNAs in our library and their representation data can be found on our website at takarabio.com/genomewidelibrary.

Sterility Test

There was no evidence of bacterial or fungal growth after inoculation on thioglycollate medium and tryptic soy broth.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

Guide-it™ Genome-Wide sgRNA Library Transfection Mix

CATALOG NO.

632650

NOTICE TO PURCHASER:

Our products are to be used for **Research Use Only**. They may not be used for any other purpose, including, but not limited to, use in humans, therapeutic or diagnostic use, or commercial use of any kind. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without our prior written approval.

Your use of this product is also subject to compliance with the licensing requirements, listed below if applicable, and described on the product's web page at <http://www.takarabio.com>. It is your responsibility to review, understand and adhere to any restrictions imposed by these statements.

STATEMENT 63

Use of this product is covered by one or more of the following U.S. Patent Nos. and corresponding patent claims outside the U.S.: 6,998,115; 7,427,394. This product is intended for research purposes only. It may not be used for (i) any human or veterinary use, including without limitation therapeutic and prophylactic use, (ii) any clinical use, including without limitation diagnostic use, (iii) screening of chemical and/or biological compounds for the identification of pharmaceutically active agents (including but not limited to screening of small molecules), target validation, preclinical testing services, or drug development. Any use of this product for any of the above mentioned purposes requires a license from the Massachusetts Institute of Technology.

STATEMENT 259

This product is protected by Japanese Patent No. 6454352 and corresponding U.S. pending patent and other foreign patents pending. For further license information, please contact a Takara Bio USA licensing representative by email at licensing@takarabio.com.

STATEMENT 272

This product ("Product") and its use, is the subject of U.S. Patents 8,697,359 and 8,771,945 and pending U.S. Patent applications. The purchase of the Product conveys to the buyer the non-transferable right to use Product(s) purchased from Takara Bio USA, Inc. or its Affiliates, and any progeny, modification or derivative of a Product, or any cell or animal made or modified through use of a Product, or any progeny, modification or derivative of such cell or animal ("Related Material"), solely for research conducted by the buyer in accordance with all of the following requirements. No right is given to use this Product or Related Material for any other purpose, including, but not limited to, use in drugs, in vitro diagnostic purposes, therapeutics, or in humans. The buyer shall not sell or otherwise transfer Products (including without limitation any material that contains a Licensed Product in whole or part) or any Related Material to any other person or entity, or use Products or any Related Material to perform services for the

Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: techUS@takarabio.com

United States/Canada

800.662.2566

Asia Pacific

+1.650.919.7300

Europe

+33.(0)1.3904.6880

Japan

+81.(0)77.565.6999

11/18/2020

benefit of any other person or entity, (ii) the buyer shall use only the purchased amount of the Products and components of the Products, and shall use any Related Material, only for its internal research and not for (a) the practice, performance or provision of any method, process or service, or (b) the manufacture, sale, use, distribution, disposition or importing of any product, in each case (a) or (b) for consideration, or on any other commercial basis ("Commercial Purpose"), (iii) the buyer shall use Licensed Products and any Related Material in compliance with all applicable laws and regulations, including without limitation applicable human health and animal welfare laws and regulations, and (iv) the buyer shall indemnify, defend and hold harmless MIT, Harvard and The Broad and their current and former trustees, directors, officers, faculty, affiliated investigators, students, employees, and agents and their respective successors, heirs and assigns ("Indemnitees"), against any liability, damage, loss, or expense (including without limitation reasonable attorneys' fees and expenses) incurred by or imposed upon any of the Indemnitees in connection with any claims, suits, investigations, actions, demands or judgments arising out of or related to the exercise of any rights granted to the buyer, or any breach of the rights granted hereunder by the buyer.

STATEMENT 55

cPPT Element. This product and its use are the subject to one or more of the following U.S. Pat. Nos. 8,093,042 and 10,407,695 and foreign equivalents. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The buyer cannot disclose information, sell or otherwise transfer this product, its components or materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for any commercial purposes. If the buyer is not willing to accept the limitations of this limited use statement, Takara Bio USA, Inc. is willing to accept return of the product with a full refund. For information on purchasing a license to the DNA-Flap technology for purposes other than research, contact the Transfer of Technology Office, Institut Pasteur, 28 rue du Docteur Roux, 75 724 Paris Cedex 15 (www.pasteur.fr).

STATEMENT 391

LIMITED USE LABEL LICENSE: RESEARCH USE ONLY Notice to Purchaser: This product is subject to a license granted to Takara Bio USA, Inc. and its Affiliates from Caribou Biosciences, Inc., and this product is transferred to the end-user purchaser ("Purchaser") subject to a "Limited Use Label License" conveying to the Purchaser a limited, non-transferable right to use the product, solely as provided to Purchaser, together with (i) progeny or derivatives of the product generated by the Purchaser (including but not limited to cells), and (ii) biological material extracted or derived from the product or its corresponding progeny or derivatives (including but not limited to cells) (collectively, the product, and (i) and (ii) are referred to as "Material") only to perform internal research for the sole benefit of the Purchaser. The Purchaser cannot sell or otherwise transfer Material to a third party or otherwise use the Material for any Excluded Use. "Excluded Use" means any and all: (a) commercial activity including, but not limited to, any use in manufacturing (including but not limited to cell line development for purposes of bioproduction), product testing, or quality control; (b) preclinical or clinical testing or other activity directed toward the submission of data to the U.S. Food and Drug Administration, or any other regulatory agency in any country or jurisdiction where the active agent in such studies comprises the Material; (c) use to provide a service, information, or data to a third party; (d) use for human or animal therapeutic, diagnostic, or prophylactic purposes or as a product for therapeutics, diagnostics, or prophylaxis; (e) activity in an agricultural field trial or any activity directed toward the submission of data to the U.S. Department of Agriculture or any other agriculture regulatory agency; (f) high throughput screening drug discovery purposes (i.e., the screening of more than 10,000 experiments per day) as well as scale-up production activities for commercialization; (g) modification of human germline, including editing of human embryo genomes (with the sole exception of editing human embryonic stem (ES) cell lines for research purposes) or reproductive cells; (h) self-editing; and/or (i) stimulation of biased inheritance of a particular gene or trait or set of genes or traits ("gene drive"). It is the Purchaser's responsibility to use the Material in accordance with all applicable laws and regulations. For information on obtaining additional rights, including

Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: techUS@takarabio.com

United States/Canada

800.662.2566

Asia Pacific

+1.650.919.7300

Europe

+33.(0)1.3904.6880

Japan

+81.(0)77.565.6999

11/18/2020

Notice to Purchaser



commercial rights, please contact licensing@cariboubio.com or Caribou Biosciences, Inc., 2929 7th Street, Suite 105, Berkeley, CA 94710 USA, Attn: Licensing.

STATEMENT 396

Sigma-Aldrich CRISPR Use License Agreement This Product and its use are the subject of one or more of the following issued patents and patent applications: Australia Patent Nos. 2013355214; 2017204031; and 2018229489; Canada Patent Nos. 2,891,347 and 2,977,152; China Patent No. CN105142669; European Patent Nos. EP 2 928 496 B1; EP 3 138 910 B1, 3 138 911 B1, EP 3 138 912 B1, EP 3 360 964 B1, EP 3 363 902 B1; Israel Patent No. IL238856; Singapore Patent No. 11201503824S; South Korea Patent Nos. 10-1844123 and 10-2006880; and U.S. Patent Application Serial Nos. 15/188,911; 15/188,924; 15/188,927; 15/188,931; and 15/456,204 (the "Patent Rights"). The purchase of this Product conveys to you (the "Buyer") the NON-TRANSFERABLE right to use the Product for Licensed Research Use (see definition below) subject to the conditions set out in this License Agreement.

1. "Licensed Research Use" means any use for research purposes, except: (i) Buyer may not sell or otherwise transfer the Product (including without limitation any material that contains the Product in whole or part) or any Related Material to any other third party (except that you may transfer the Product, or any Related Material to a bona fide collaborator or contract research organization), or use the Products or any Related Material to perform services for the benefit of any other third party; (ii) Buyer may use only the purchased amount of the Product and components of the Product, and shall use any Related Material, only for your internal research within the Field, and not for any Commercial Purposes; (iii) Buyer shall use the Product and any Related Material in compliance with all applicable laws and regulations, including without limitation applicable human health and animal welfare laws and regulations; and (iv) the Buyer shall indemnify, defend, and hold harmless SIGMA and their current and former directors, officers, employees and agents, and their respective successors, heirs and assigns (the "Indemnities") against any liability, damage, loss, or expense (including without limitation reasonable attorneys' fees and expenses) incurred by or imposed upon any of the Indemnites in connection with any claims, suits, investigations, actions, demands or judgments arising out of or related to the exercise of any rights granted to the Buyer hereunder or any breach of this License Agreement by such Buyer. 2. For purposes of Section 1 above, the following definitions shall apply: "Commercial Purposes" means (a) the practice, performance or provision of any method, process or service, or (b) the manufacture, sale, use, distribution, disposition or importing of any product, in each case (a) or (b) for consideration, or on any other commercial basis. "Field" means use as a research tool for research purposes; provided, however, that notwithstanding the foregoing, the Field shall expressly exclude (a) any in vivo and ex vivo human or clinical use, including, without limitation, any administration into humans or any diagnostic or prognostic use, (b) the creation of transgenic rodent models and/or derivatives thereof (including, but not limited to, rodents' cells and rodents' organs) by for-profit entities, (c) any in vivo veterinary or livestock use, or non-research agricultural use, or (d) use as a testing service, therapeutic or diagnostic for humans or animals. "Related Materials" means any progeny, modification or derivative of a Product. 3. Your right to use the Product will terminate immediately if you fail to comply with these terms and conditions. You shall, upon such termination of your rights, destroy all Product, Related Materials, and components thereof in your control, and notify SIGMA of such in writing. For information on purchasing a license to this Product for purposes other than Licensed Research Use, contact your local SIGMA sales representative, or call +1 800-325-3010.

TRADEMARKS:

©2020 Takara Bio Inc. All Rights Reserved.

All trademarks are the property of Takara Bio Inc. or its affiliate(s) in the U.S. and/or other countries or their respective owners. Certain trademarks may not be registered in all jurisdictions.

Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: techUS@takarabio.com

United States/Canada

800.662.2566

Asia Pacific

+1.650.919.7300

Europe

+33.(0)1.3904.6880

Japan

+81.(0)77.565.6999

11/18/2020