

F. トランスフェクション試薬

2-F-1) トランスフェクション試薬をご注文いただくには、ホームページ(<http://horizondiscovery.com>)の上部にある青いバナーの「Gene modulation」(緑実線枠)から、「Transfection reagents & buffers」(赤実線枠)にアクセスしてください。

The screenshot shows the top navigation bar of the Horizon Discovery website. The 'Gene modulation' link is highlighted with a green border. Below the navigation bar, the 'Gene modulation' section is displayed, featuring a grid of categories: Knockdown (siRNA, shRNA, microRNA, lncRNA, Controls), Overexpression (CRISPRa, cDNA, ORFs), Screening (CRISPRa libraries, RNAi libraries, cDNA/ORF libraries, Screening services), Tools (siDESIGN center, Custom siRNA, Custom microRNA, Cherry pick tool), and Transfection reagents & buffers, which is highlighted with a red border.

Gene editing > **Gene modulation** > Screening > Animal models > CHO cells >

Gene modulation

- Knockdown**
 - siRNA
 - shRNA
 - microRNA
 - lncRNA
 - Controls
- Overexpression**
 - CRISPRa
 - cDNA
 - ORFs
- Screening**
 - CRISPRa libraries
 - RNAi libraries
 - cDNA/ORF libraries
 - Screening services
- Tools**
 - siDESIGN center
 - Custom siRNA
 - Custom microRNA
 - Cherry pick tool
- Transfection reagents & buffers**

2-F-2) 「See products」(青点線枠)をクリックすると、DharmaFECT transfection reagentsの詳細な製品リストが表示されます。

The screenshot shows the 'Transfection reagents & buffers' product page. The page features a header with the title and a sub-header 'Efficient and reliable transfection with minimal cellular toxicity'. Below the header, there are three main sections: 'DharmaFECT transfection reagents' (with a 'See products' button highlighted by a blue dashed box), 'Ancillary buffers & media' (with a 'Search buffers' button), and 'Viral packaging' (with a 'View options' button). At the bottom, there is a video player titled 'Simultaneous delivery of CRISPR guide RNA and Cas9 DNA plasmid' and two additional sections: 'Pro tips for a successful transfection' (with a 'Read more' button) and 'Transfecting CRISPR guide RNA into stable Cas9 expressing cells' (with a 'Read note' button).

Transfection reagents & buffers

Efficient and reliable transfection with minimal cellular toxicity

- DharmaFECT transfection reagents**
Optimized solutions for RNA transfection into a wide range of cell types for successful gene editing experiments
[See products](#)
- Ancillary buffers & media**
Complete your experiment with all necessary ancillary reagents, including buffers, water, and specialized cell culture media
[Search buffers](#)
- Viral packaging**
Efficiently generate replication-incompetent lentiviral particles to deliver and express an shRNA or ORF construct into mammalian cells
[View options](#)

Simultaneous delivery of CRISPR guide RNA and Cas9 DNA plasmid

This video demonstrates co-delivery of Edit-R™ CRISPR guide RNA along with a Cas9 expressing DNA plasmid.

Pro tips for a successful transfection

Read our top suggestions for transfection success! See how to select the right reagents for your needs and optimize conditions to achieve the best possible results.

[Read more](#)

Transfecting CRISPR guide RNA into stable Cas9 expressing cells

This application note describes optimizing the reverse transfection of synthetic guide RNA into a Cas9-expressing cell line using DharmaFECT™ transfection reagents

[Read note](#)

2-F-3) 下の図は、「Products」(緑実線枠)をクリックして各種トランスフェクション試薬を表示した画面です。Cell Line Data(緑点線枠)をクリックすると、細胞株ごとに最適なDharmaFECT試薬を検討した例が表示されますので、製品選択のご参考にしてください(18ページ参照)。以下に、「DharmaFECT 1 Transfection Reagent」(赤実線枠)を例に説明します。

Transfection

Reagents optimized for your specific application

Overview **Products** Controls **Cell Line Data** Supporting Data

- DharmaFECT 1 Transfection Reagent**

The most broadly applicable DharmaFECT formulation for optimal siRNA or microRNA transfection into a wide range of cell types for successful RNAi experiments. DharmaFECT 1 has been validated in over 35 cell types.

- DharmaFECT 2 Transfection Reagent

One of four siRNA/microRNA specific formulations, DharmaFECT 2 is a chemically distinct alternative to one-size-fits-all transfection reagents to achieve high-efficiency silencing in more cell types.

- DharmaFECT 3 Transfection Reagent

One of four siRNA/microRNA specific formulations, DharmaFECT 3 is a chemically distinct alternative to one-size-fits-all transfection reagents to achieve high-efficiency silencing in more cell types.

- DharmaFECT 4 Transfection Reagent

DharmaFECT 4 Transfection Reagent is chemically distinct from the other DharmaFECT formulations, providing an alternative when DharmaFECT 1 does not achieve optimal results, and is ideal to include in transfection optimization experiments prior to RNAi screening or other high-value experiments

- DharmaFECT Set of 4 Transfection Reagents

An aliquot of each of the four DharmaFECT formulations for siRNA/microRNA transfection optimization studies. Useful for determination of the best reagent for your cells and particular experimental conditions.

- DharmaFECT Duo Transfection Reagent

For high-confidence co-transfection

- DharmaFECT kb Transfection Reagent

Efficient transfection of plasmid DNA with minimal cytotoxicity

2-F-4)下の画面はDharmaFECT 1 Transfection Reagentを選択&クリックした結果が表示された状態です。赤実線枠の項目を選択&クリックすることで、容量を選択できます。「Add to Cart」ボタン(青点線枠)をクリックすると製品がショッピングカートに入ります。

DharmaFECT 1 Transfection Reagent

Efficient siRNA or microRNA transfection

The most broadly applicable DharmaFECT formulation for optimal siRNA or microRNA transfection into a wide range of cell types for successful RNAi experiments. DharmaFECT 1 has been validated in over 35 cell types.

Select Product for: DharmaFECT 1 Transfection Reagent

1. Size

0.2 mL

0.75 mL

1.5 mL

5 X 1.5 mL tubes

2 x 10 mL

¥18,100

Catalog ID: T-2001-01

-

1

+

Add to Cart

細胞株ごとに最適なDharmaFECT試薬を検討した例

DharmaFECT Transfection Reagent

The table below lists transfection recommendations to help you select the appropriate DharmaFECT formulation for your research. You can also download a PDF version of the DharmaFECT Cell Type Guide [here](#).

All experimental conditions resulted in cell viability and positive control gene silencing of 80% or better.

All experiments were done in 96-well plates with Non-targeting control siRNA and PPiB (Cyclophilin B) or GAPD Control pools at 25 nM; Alamar Blue (viability) and knockdown measured at 24 hours. Data normalized to untransfected for viability and both untransfected and Non-targeting control for knockdown.

Transfection conditions should always be re-evaluated in the context of a new plate format or assay-specific requirements for cell density.

Human					
Cell line	Cell type	Recommended DharmaFECT formulation	DharmaFECT volume/well (μL) in 96 well plate	Plating density in 96 well plate (cells per well)	Other successful formulations
786-0	Kidney adenocarcinoma	1	0.4	5 × 10 ³	2
A549	Lung carcinoma	1	0.2	1 × 10 ⁴	2, 3, 4
ARPE-19	Retinal pigment epithelial	4	0.2	1 × 10 ⁴	1, 2
BxPC3	Pancreas adenocarcinoma	2	0.2	5 × 10 ³	1, 3, 4
DLD-1	Colorectal adenocarcinoma	2	0.4	5 × 10 ³	1, 3
DU 145	Prostate carcinoma	1	0.2	1 × 10 ⁴	2, 3, 4
NCH-H1299	Lung carcinoma	2	0.2	1 × 10 ⁴	4
HCT-116	Colorectal carcinoma	2	0.1	5 × 10 ³	4
HEK293	Kidney transformed embryonic cells	1	0.2	1 × 10 ⁴	2, 4
HeLa	Cervical epithelial adenocarcinoma	1	0.2	5 × 10 ³	2, 3, 4
HeLa S3	Cervical epithelial adenocarcinoma	4	0.4	5 × 10 ³	1, 2, 3
Hep G2	Hepatocellular carcinoma	4	0.4	1 × 10 ⁴	1, 2
hMSC	Mesenchymal stem cells	1	0.4	5 × 10 ³	2, 3, 4
HT-29	Colorectal carcinoma	1	0.2	5 × 10 ³	2, 3, 4
HT1080	Fibrosarcoma	4	0.2	5 × 10 ³	1, 2, 3
Huh7	Hepatocarcinoma	4	0.05	5 × 10 ³	1, 2
HUVEC	Umbilical vein endothelial cells	4	0.2	2 × 10 ⁴	1, 2
JEG-3	Placenta, choriocarcinoma, epithelial	3	0.2	1 × 10 ⁴	
LNCaP	Prostate carcinoma	3	0.2	1 × 10 ⁴	1
MCF	Breast adenocarcinoma	1	0.2	1 × 10 ⁴	2, 4
MCF 10A	Breast adenocarcinoma	1	0.2	1 × 10 ⁴	2
MDA-MB-453	Breast adenocarcinoma	2	0.2	1 × 10 ⁴	1, 3, 4
MDA-MB-231	Breast adenocarcinoma	4	0.1	5 × 10 ³	1
OVCAR3	Ovarian adenocarcinoma	1	0.1	5 × 10 ³	2, 3, 4
PC-3	Prostate carcinoma	2	0.2	1 × 10 ⁴	3
Saos-2	Bone, osteosarcoma, epithelial	1	0.05	1 × 10 ⁴	2, 3, 4
SK-BR-3	Breast adenocarcinoma	2	0.2	1 × 10 ⁴	1, 3, 4
SKOV-3	Ovarian adenocarcinoma	3	0.4	1 × 10 ⁴	1, 2, 4
U-87 MG	Brain glioblastoma	1	0.1	5 × 10 ³	2, 3, 4
Rodent					
Cell line	Cell type	Recommended DharmaFECT formulation	DharmaFECT volume/well (μL) in 96 well plate	Plating density in 96 well plate (cells per well)	Other successful formulations
A7r5	Rat aortic smooth muscle	2	0.1	5 × 10 ³	1
C2C12	Mouse myoblasts	1	0.2	5 × 10 ³	2, 3, 4
CHO K1	Chinese hamster ovary	4	0.8	1 × 10 ⁴	1, 2
ES-D3	Mouse embryonic stem cells	1	0.2	2 × 10 ³	2
ES-E14TG2a	Mouse embryonic stem cells	1	0.2	2 × 10 ³	2
H9c2	Rat myoblasts	1	0.2	1 × 10 ⁴	2, 3, 4
J774A.1	Mouse macrophages	4	0.2	1 × 10 ⁴	-
NIH/3T3	Mouse embryonic fibroblasts	1	0.2	1 × 10 ⁴	3
NRK-49F	Rat kidney fibroblasts	2	0.2	1 × 10 ⁴	1, 4
Rat2	Rat fibroblasts	1	0.2	2 × 10 ⁴	2
3T3-L1	Mouse embryonic fibroblasts	1	0.2	5 × 10 ³	3
Other					
Cell line	Cell type	Recommended DharmaFECT formulation	DharmaFECT volume/well (μL) in 96 well plate	Plating density in 96 well plate (cells per well)	Other successful formulations
COS-7	African green monkey kidney	2	0.4	5 × 10 ³	1, 3, 4