

# Invitrogen™ TransfectionSelect™ product selection tool

Transfection success starts with this free online resource

## Got a minute?

You're <60 seconds away from an optimized delivery solution to help you maximize transfection efficiency and cell viability.



Enter your cell type and payload to receive recommendations and support.



- **Comprehensive:** over 200 cell types
- Results include *in vitro* or *in vivo* lipid delivery and/or electroporation options
- Links to optimized protocols and curated citations that can help speed up assay development
- Streamlined purchasing with direct add-to-cart functionality

## In vivo delivery

Invitrogen™ Vivofectamine™ Delivery Solutions are highly advanced lipid nanoparticles (LNPs) that have been selected from a large and diverse lipid library. Vivofectamine Delivery Solutions have been selected for performance, safety, and efficacy. These products and services are available as:

- Ionizable lipids
- Premixed lipid formulations
- Formulation services

Learn more about LNPs at

[thermofisher.com/vivofectamine](https://thermofisher.com/vivofectamine)

## Ordering information

Product	Quantity	Cat. No.
Lipofectamine 3000 Reagent	1.5 mL	L3000015
Lipofectamine 2000 Reagent	1.5 mL	11668019
Lipofectamine LTX Reagent and PLUS Reagent	1 mL	15338100
Lipofectamine RNAiMAX Reagent	1.5 mL	13778150
Lipofectamine MessengerMAX Reagent	1.5 mL	LMRNA015
Lipofectamine CRISPRMAX Cas9 Transfection Reagent	1.5 mL	CMA00015
Lipofectamine Stem Reagent	0.75 mL	STEM00008
Neon NxT Electroporation System Starter Kit	Starter pack	NEON18SK
Neon NxT Electroporation System 10 µL Kit	96 x 2 reactions	N1096
Neon NxT Electroporation System 100 µL Kit	96 x 2 reactions	N10096
TrueCut Cas9 Protein v2	500 µg	A36499
TrueGuide Modified Synthetic sgRNA	<a href="https://thermofisher.com/crisprgrna">thermofisher.com/crisprgrna</a>	
Opti-MEM I Reduced Serum Medium	100 mL	31985062
	500 mL	31985070
Vivofectamine VF232 Liver LNP Composition in Ethanol	1 mL	VF232LVCE
Vivofectamine VF233 IM LNP Composition in Ethanol	1 mL	VF233IMCE

## References

1. Felgner PL et al. (1987) Lipofection: a highly efficient, lipid-mediated DNA-transfection procedure. *Proc Natl Acad Sci USA* 84:7413–7417.
2. Fire A et al. (2001) Specific inhibition of gene expression by small double-stranded RNAs in invertebrate and vertebrate systems. *Proc Natl Acad Sci USA* 98:9442–9747.
3. Mali P et al. (2013) RNA-guided human genome engineering via Cas9. *Science* 339:823–826.
4. Walls AC et al. (2020) Structure, function, and antigenicity of the SARS-CoV-2 spike glycoprotein. *Cell* 181:281–292.

Learn more at [thermofisher.com/transfectionselect](https://thermofisher.com/transfectionselect)

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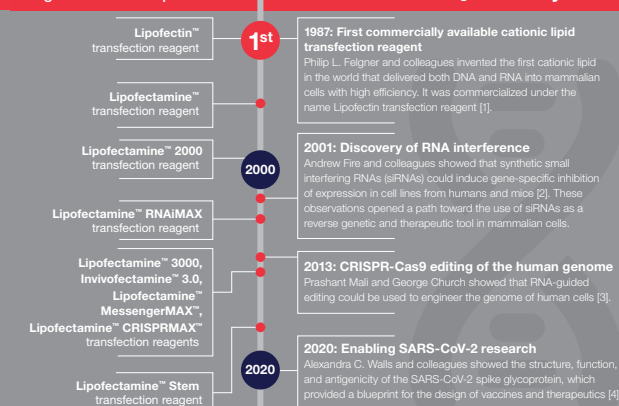
ThermoFisher  
SCIENTIFIC

ThermoFisher  
SCIENTIFIC

# Transfection solutions

Invitrogen™ transfection reagents have been part of ...

... scientific breakthroughs for >30 years



Lipofectamine reagents are the most-cited transfection reagents in global scientific journals



300,000  
citations and counting

Lipofectamine reagents are used by scientists from 101 countries



The most-trusted transfection reagent family globally



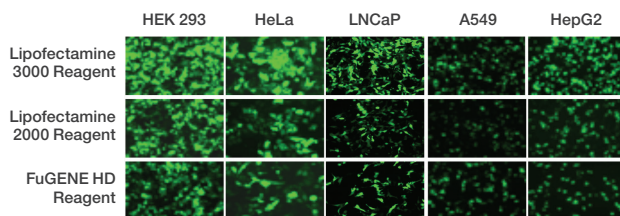
invitrogen

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## Lipofectamine 3000 Reagent\*

- **Enhanced efficiency:** exceptional transfection efficiency for various cell types
- **Broad compatibility:** suitable for DNA, RNA, and CRISPR
- **Reduced toxicity:** gentle on cells, maintaining viability
- **Great value:** just pennies per reaction for exceptional transfection results

\* Lipofectamine 3000 Reagent as shown in the Invitrogen™ Lipofectamine™ 3000 Transfection Kit.



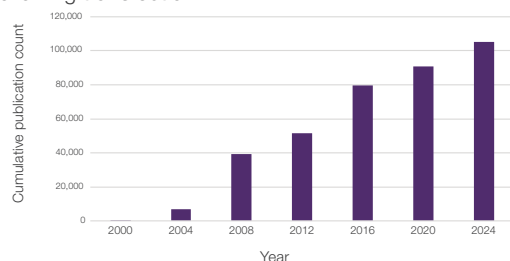
Transfection efficiency and expression of green fluorescent protein (GFP) in various cell lines and with three transfection reagents

Better together with Gibco™  
Opti-MEM™ | Reduced Serum Medium

Workhorse Hard to transfect Primary Stem DNA Cotransfection

## Lipofectamine 2000 Reagent

- **High efficiency:** excellent for diverse cell types
- **Versatility:** works with DNA, RNA, and siRNA
- **Reliable performance:** ready for high-throughput applications
- Helps eliminate the need to change media following transfection

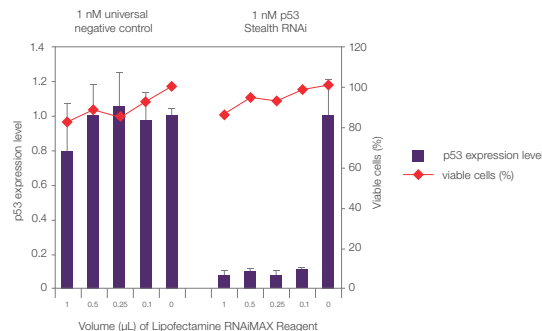


Better together with Opti-MEM |  
Reduced Serum Medium

Workhorse Neurons DNA Cotransfection

## Lipofectamine RNAiMAX Reagent

- **High efficiency:** optimized for siRNA and microRNA (miRNA) delivery
- **Low toxicity:** helps minimize impact on cell viability
- **Versatile application:** effective for a wide range of cell types



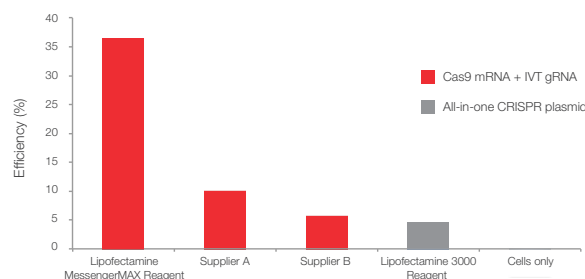
Optimal knockdown and minimal cytotoxicity in A549 cells

Better together with Invitrogen™  
Stealth RNAi™ siRNA

Workhorse Hard to transfect Primary Stem Neurons siRNA/miRNA

## Lipofectamine MessengerMAX Reagent

- **High efficiency:** excellent for transfecting various adherent primary cells and cell lines
- **Fast protein expression:** helps minimize risk of genomic integration
- Up to 10 times higher cleavage efficiency using Cas9 mRNA and *in vitro* transcription (IVT) gRNA



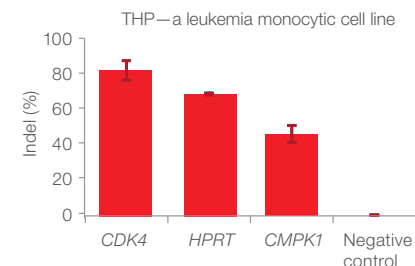
Cleavage efficiency of various Invitrogen™ GeneArt™ CRISPR formats targeting Gibco™ iPS cells

Better together with Invitrogen™  
mMESSAGE mMACHINE™ kits

Workhorse Hard to transfect Primary Stem DNA mRNA

## Lipofectamine CRISPRMAX Transfection Reagent

- **High efficiency:** optimized for CRISPR-Cas9 delivery
- **Low toxicity:** maintains high cell viability
- **Broad compatibility:** suitable for more than 20 cell types
- **High-throughput option:** an exceptional delivery solution for 96-well formats



High-efficiency gene editing across a range of targets in the THP cell type

Better together with Invitrogen™  
TrueCut™ HiFi Cas9 Protein

Workhorse Hard to transfect Primary Cas9 RNP\*

\* RNP: ribonucleoprotein

## Lipofectamine Stem Reagent

- **Amazing efficiency:** excellent for both neuronal transfection and primary cell transfection
- **Fast protein expression:** helps minimize risk of genomic integration
- Up to 10 times higher cleavage efficiency using mRNA CRISPRs



Indicated disease-causing mutations were introduced via CRISPR-Cas9 delivered using Lipofectamine Stem Reagent

\*\* BS3 iPSCs are a line of internally derived iPSCs that are generated by reprogramming human dermal fibroblasts.

Better together with  
Gibco™ StemFlex™ Medium

Stem DNA siRNA/miRNA mRNA Cas9 RNP