SilenceMag™
Magnetofection Technology for Neurons

To find the ideal conditions with SilenceMag, we suggest to test ranging doses of siRNA (or miRNA): from 10 to 50 nM per well.

1. Prepare 3 wells: seed the cells to be at 50-70% confluent on the day of transfection

2. Prepare 3 identical tubes of siRNA with ranging doses of nucleic acids

96-well plate	24-well plate	6-well plate
10 nM/25 nM/50 nM in **50 µL** serum-free medium or buffer	10 nM/25 nM/50 nM in **100 µL** serum-free medium or buffer	10 nM/25 nM/50 nM in **200 µL** serum-free medium or buffer

3. Prepare 3 tubes of SilenceMag

96-well plate	24-well plate	6-well plate
0.5 µL/1 µL/1 µL	1 µL/2 µL/3 µL	4 µL/8 µL/10 µL

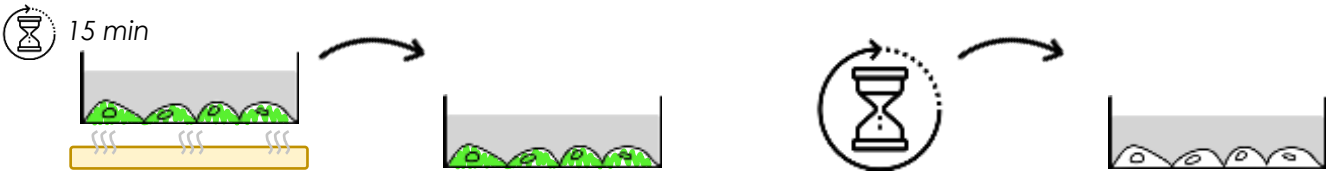
4. Mix each siRNA suspension to each tube of SilenceMag

Incubate 20 min at RT

siRNA	96-well	24-well	6-well
10 nM	0.5 µL	2 µL	8 µL
25 nM	1 µL	3 µL	10 µL
50 nM	1 µL	4 µL	14 µL

Distribute each mix dropwise onto cells

5. Incubate the cells 15 min on the magnetic plate and follow transgene expression



Place the cells onto the magnetic plate

Remove the cells from magnet

Incubate 48 to 72 h at 37°C

Choose the best ratio siRNA:SilenceMag

Contact us regarding protocols for gene silencing in suspension cells or optimization procedures at: **tech@ozbiosciences.com** or visit our website: **www.ozbiosciences.com**.

Rev 08/26 CS

SilenceMag
SilenceMag siRNA transfection reagent

Before you begin

SilenceMag is a magnetic nanoparticles formulation specifically designed for siRNA/miRNA transfection in numerous cell types (Primary and Hard-to-transfect cells).

Protocol | General considerations

- Allow reagents to reach room temperature (RT).
- Use medium w/o any supplement for preparation of complexes, avoid using RPMI.
- Follow order of addition: add siRNA solution into SilenceMag solution.

1. Cells preparation:
Seed cells 24 h before transfection to reach 50–70% confluence at transfection.

Cell culture format	Adherent cell nb. / well
96-well	6-12 x 1.10^3
24-well	4-8 x 1.10^4
6-well	2-4 x 1.10^5

Table 1: Cell number suggested per well.

2. Preparation of siRNA/SilenceMag complexes:

a. siRNA: Dilute the siRNA stock solution (1 µM) in **50** to **100 µL** of culture medium w/o supplement (Table 2).

Culture vessel	96-well		24-well		6-well	
Dilution	50 µL		100 µL		200 µL	
Amount of siRNA (1 µM stock)*						
Final siRNA concentration	µL	ng	µL	ng	µL	ng
10 nM	2	27	5	67.5	20	270
20 nM	4	54	10	135	40	540
50 nM	10	135	25	337.5	100	1350

*ng of siRNA was calculated based on MW=13 500.

Table 2: Suggested dilution procedure and amount of siRNA to test.

b. SilenceMag: dilute SilenceMag in **50** to **100 µL** of culture medium w/o supplement (Table 3).

Culture vessel	96-well	24-well	6-well
Dilution	50 µL	50 µL	100 µL
Final transfection volume	200 µL	500 µL	2 mL
Final siRNA concentration	Amount of SilenceMag (µL)		
10 nM	0.5	2	8
20 nM	1	3	10
≥50 nM	1	4	14

Table 3: recommended amount of SilenceMag per nM of siRNA.

c. Add siRNA solution to SilenceMag solution, mix gently by carefully pipetting up and down.

d. Incubate the mixture at RT for **20 min**.
⚠ Do not vortex or centrifuge.

3. Transfection | Magnetofection:

a. Add the complexes onto cells drop by drop and gently rock the plate to ensure a uniform distribution.

b. Place the cell culture plate on the magnetic plate for **15 min** (RT or 37°C).

b. Remove the magnetic plate and cultivate the cells at **37°C** in a CO_2 incubator under standard conditions until evaluation of gene silencing (48-96 H).

Protocol | Suspension cells | Optimization

Contact us regarding protocols for gene silencing in suspension cells, optimization procedure… or any technical question:
✉ **- tech@ozbiosciences.com.**

Use, handling and storage

For Research Use Only. Not for use in humans. Not for use in diagnostic or therapeutic purposes.

Shipping conditions: Room Temperature

Storage conditions SilenceMag: 4°C

Shelf life: 1 year from the date of purchase

Kit contents

SM10200: 200 µL of SilenceMag reagent
SM10500: 500 µL of SilenceMag reagent
SM11000: 1 mL of SilenceMag reagent
SM13000: 3x1 mL of SilenceMag reagent
KC30300: 200 µL of SilenceMag + Super Magnetic Plate
KC30400: 200 µL of SilenceMag + 100 µL PolyMag Neo + 100 µL PolyMag Premium + 100 µL CombiMag reagent + Super Magnetic Plate

Certificate of analysis on demand.

Related Products

Ref	Description
#LL71000	Lullaby transfection reagent
#LS21000	Lullaby Stem transfection reagent for siRNA

Purchaser Notification | Conditions of Sale

This product is sold in accordance with our general conditions of sale that you can find on our website: https://ozbiosciences.com/content/3-terms-and-conditions.

Rev 08/26 CS