

To find the ideal conditions, NeuroMag must be tested at ratios of **1 $\mu\text{L}/\mu\text{g}$, 2 $\mu\text{L}/\mu\text{g}$, 3 $\mu\text{L}/\mu\text{g}$ and 3.5 $\mu\text{L}/\mu\text{g}$** (μL of NeuroMag / μg of DNA). For the DNA quantity, we suggest **0.5 μg** per well in 96-well, **1 μg** per well in 24-well and **4 μg** per well in 6-well.

1. Prepare 4 wells: seed the cells to be at 70% confluent on the day of transfection



Do not change medium 24 h before transfection; if needed change only 50% *.

2. Prepare 4 identical tubes of DNA



96-well plate

0.5 μg in 50 μL of serum-free medium or buffer **x4**

24-well plate

1 μg in 100 μL of serum-free medium or buffer **x4**

6-well plate

4 μg in 200 μL of serum-free medium or buffer **x4**

3. Prepare 4 tubes of NeuroMag



96-well plate

0.5 μL /1 μL /1.5 μL /1.75 μL

24-well plate

1 μL /2 μL /3 μL /3.5 μL

6-well plate

4 μL /8 μL /12 μL / 14 μL

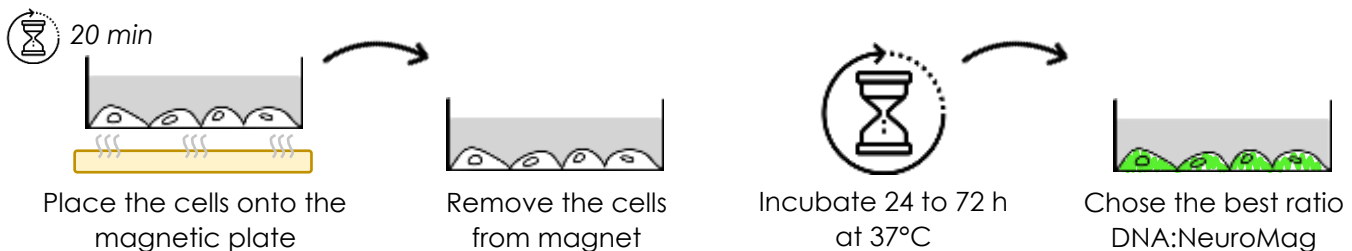
4. Mix each DNA suspension to each tube of NeuroMag



Incubate 15-20 min at RT

Distribute each preparation of complexes in each well.

5. Incubate the cells 20 min on the magnetic plate and follow transgene expression



* Refer to the section "general considerations"

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

Before you begin

NeuroMag™ is a Magnetic nanoparticle formulation specifically designed to achieve high transfection efficiency of primary neurons and neuronal cell lines.

Protocol | General considerations

- Allow reagents to reach room temperature.
- Use medium w/o any supplement for preparation of complexes, avoid using RPMI.
- Avoid medium change within 24 h prior to transfection.

⚠ For doses of NeuroMag less than 1 µL, dilute the reagent with deionized water only.

⚠ Contact us for long term cultures transfection.

1. Cells preparation:

One day before transfection prepare the cells according to table 1 (recommended 70% confluence).

Cell culture format	Adherent cell nb. / well
96-well	0.05-0.2 x 1.10 ⁵
24-well	0.5-1.5 x 1.10 ⁵
6-well	2-8 x 1.10 ⁵

Table 1: Cell number suggested per well.

2. Preparation of DNA/NeuroMag complexes:

a. **NeuroMag:** mix the reagent and add **0.5 to 14 µL** in a microtube (refer to Table 2).

b. **DNA:** Dilute the indicated quantity of DNA in **50 to 200 µL** of culture medium w/o supplement (refer to Table 2).

c. Add DNA solution to NeuroMag, mix gently by carefully pipetting up and down.

d. Incubate the mixture at room temperature for **20 min.**

⚠ Do not vortex or centrifuge.

3. Transfection | Magnetofection:

a. Add the NeuroMag/DNA 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 **15-20 min** (RT or 37°C).

d. Remove the magnetic plate and cultivate the cells at **37°C** in a CO₂ incubator under standard conditions until evaluation of transgene expression.

Cell culture format	DNA quantity	NeuroMag volume (µL)	Dilution volume	Transfection volume
96-well	0.5 µg	0.5, 1, 1.5, 1.75	50 µL	200 µL
24-well	1 µg	1, 2, 3, 3.5	100 µL	500 µL
6-well	4 µg	4, 8, 12, 14	200 µL	2 mL

Table 2: Recommended DNA amounts, NeuroMag volumes and transfection conditions. For other formats, adjust conditions accordingly.

Protocol | Optimization | Co-transfection | siRNA transfection |

This reagent is also effective for multiple applications such as gene silencing with siRNA, co-transfections ...

Contact us regarding protocols for these applications, 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 NeuroMag: -20°C

Shelf life: 1 year from the date of purchase

Kit contents

NM50200 : 200 µL of NeuroMag reagent

NM50500 : 500 µL of NeuroMag reagent

NM51000 : 1 mL of NeuroMag reagent

KC30800 : NeuroMag Starting Kit – 200 µL of NeuroMag reagent + Super Magnetic plate

Certificate of analysis on demand.

Related Products

Ref	Description
#GL00500	Glial-Mag transfection reagent
#IV-BF30500	BrainFectIN (in vivo central nervous system).
#PL00020	pVectOZ transfection plasmids – positive controls

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>.