Glial-Mag Results

Glial-Mag is the ideal transfection reagent specifically developed for microglial cell transfection with high efficiency. **Glial-Mag** kit is the association of a specific magnetic nanoparticles formulation (**Glial-Mag reagent**), issued from our Magnetofection™ technology and a booster (**Glial-Boost**) designed to enhance transfection efficiency.

Glial-Mag transfection reagent main benefits**:**

- Highly efficient with microglial cell lines & primary cells
- Low nucleic acid amount - minimized toxicity
- High level of nucleic acid compaction
- Easy and straightforward protocol
- Compatible with any culture medium.

Applications

Glial-Mag has been specifically developed for DNA transfection of microglial cells. This transfection reagent is serum compatible and used for transient and stable transfection. Glial-Mag is very stable, ready-to-use and intended for research purpose only.

Glial-Mag for transfecting primary microglial & microglial cell lines

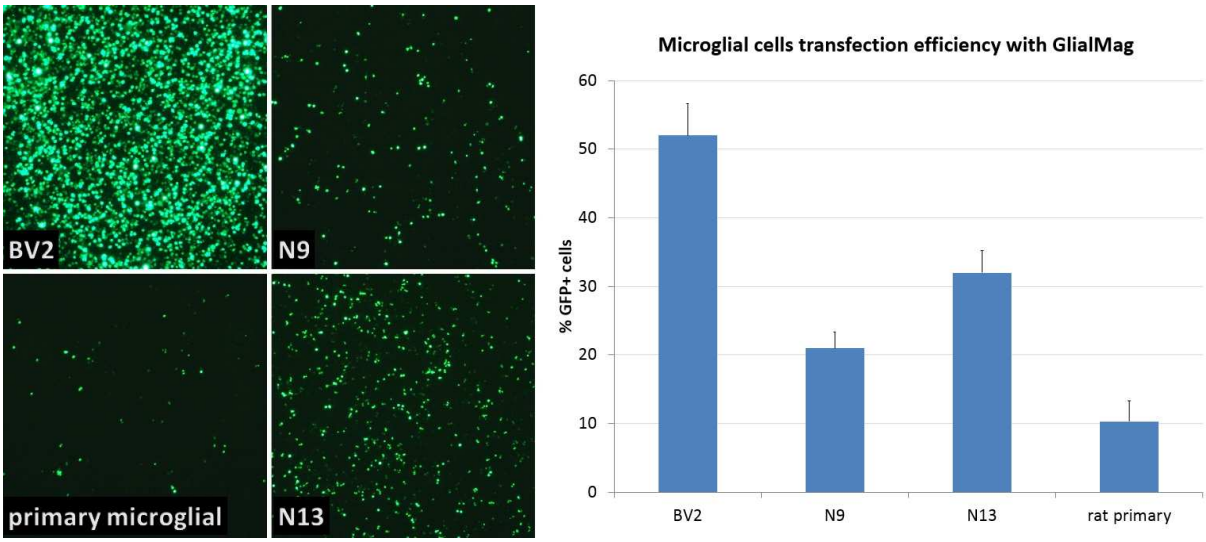

Fig. 1: 0.2µg of pVectOZ-GFP (BV2/Primary) and 0.4µg were complexed with **Glial-Mag** at a 3.5:1 ratio and transfection was performed according to the standard protocol. After 24h, GFP+ cells were analysed by fluorescence microscopy and Flow cytometry.

Glial-Mag optimization experiments in 48- & 24-well plates

Results show the transfection efficiency using **Glial-Mag** using low amounts of DNA.

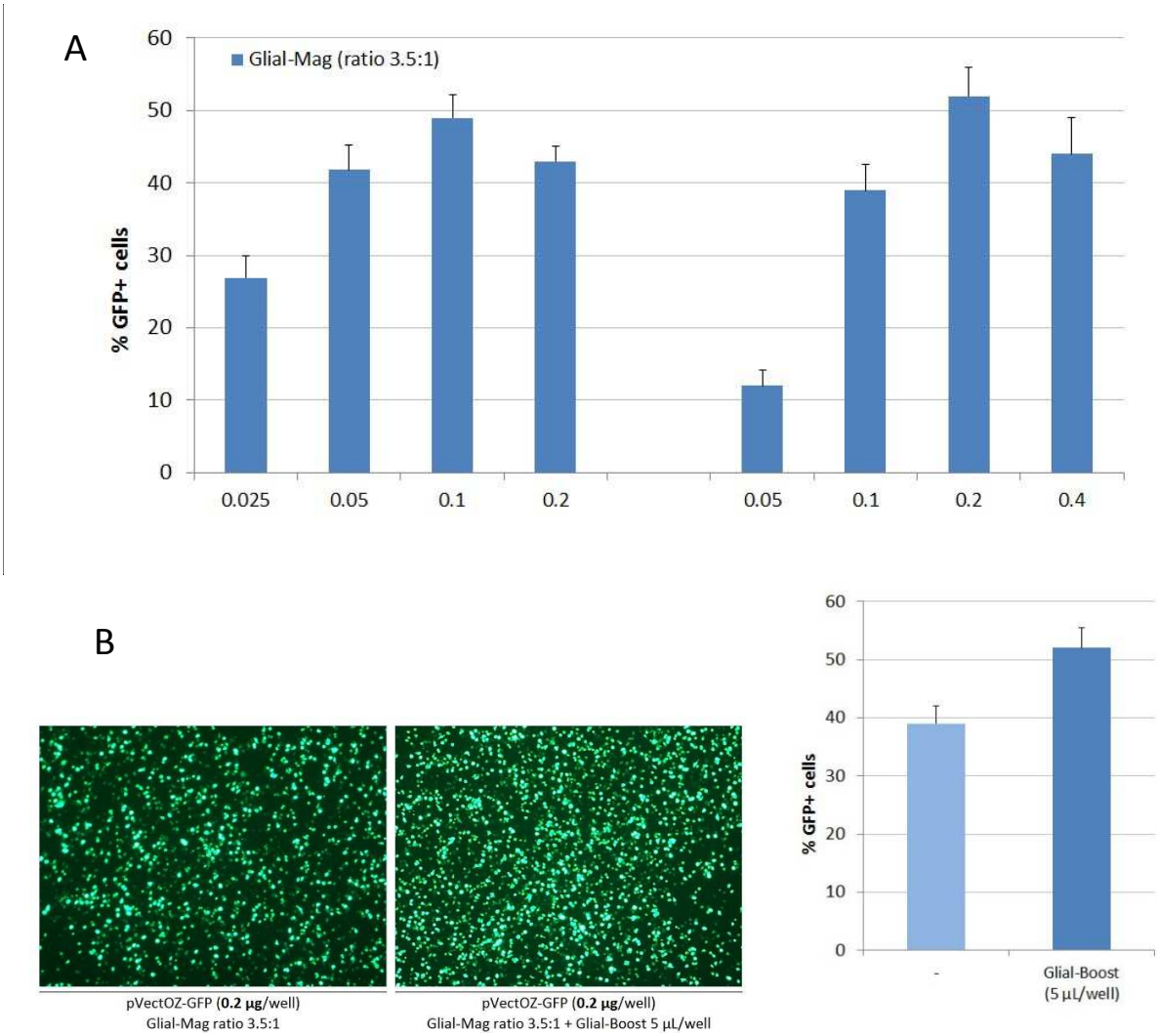

Fig. 2: Transfection of BV2

A. Several amounts of pVectOZ-GFP were complexed with **Glial-Mag** at a 3.5:1 ratio. B. 0.2 µg pVectOZ-GFP were complexed with Glial-Mag at a 3.5:1 ratio and transfection was performed in presence or not of Glial-Boost. After 24h, GFP+ cells were visualized under fluorescent microscopy and % of GFP+ cells was determined by Flow cytometry.

Glial-Mag & Protein production

Results show that Glial-Mag induces high level of protein production.

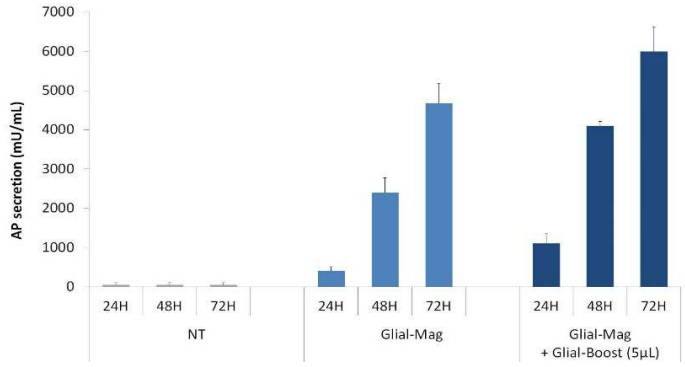

Fig. 3: Transfection of BV2. Complexes of pVectOZ-SEAP DNA and **Glial-Mag** were prepared as previously described (0.2 µg DNA / ratio 3.5:1) in presence or not of 5 µL Glial-Boost. Secreted Alkaline Phosphatase was measured in the supernatants 24, 48 and 72h after transfection using the SEAP assay KIT (OZ Biosciences - Ref # SP00500).

Glial-Mag: comparison with other reagents

Results show that **Glial-Mag** enables to transfect cells with high efficiency while using less DNA when compared to other commercial transfection reagents.

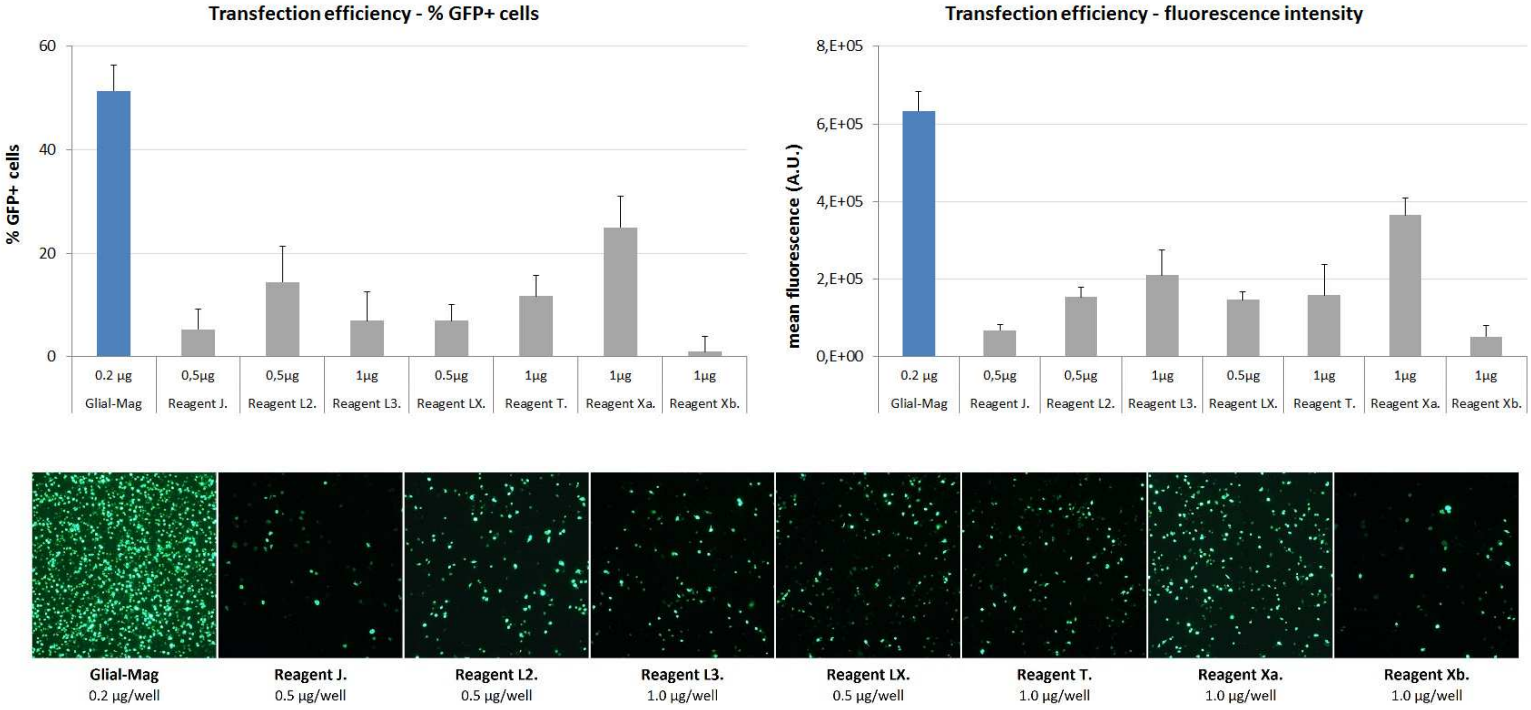

Fig. 4: Transfection of BV2. Complexes of pVectOZ-GFP encoding DNA and **Glial-Mag** were prepared as described in the standard protocol. Other commercial transfection reagents were used as recommended by the manufacturers. After 24h, GFP+ cells were analysed by fluorescence microscopy and Flow cytometry.

Glial-Mag & Viability

Results show that **Glial-Mag** is totally compatible with cell viability and induces a very low level of apoptosis.

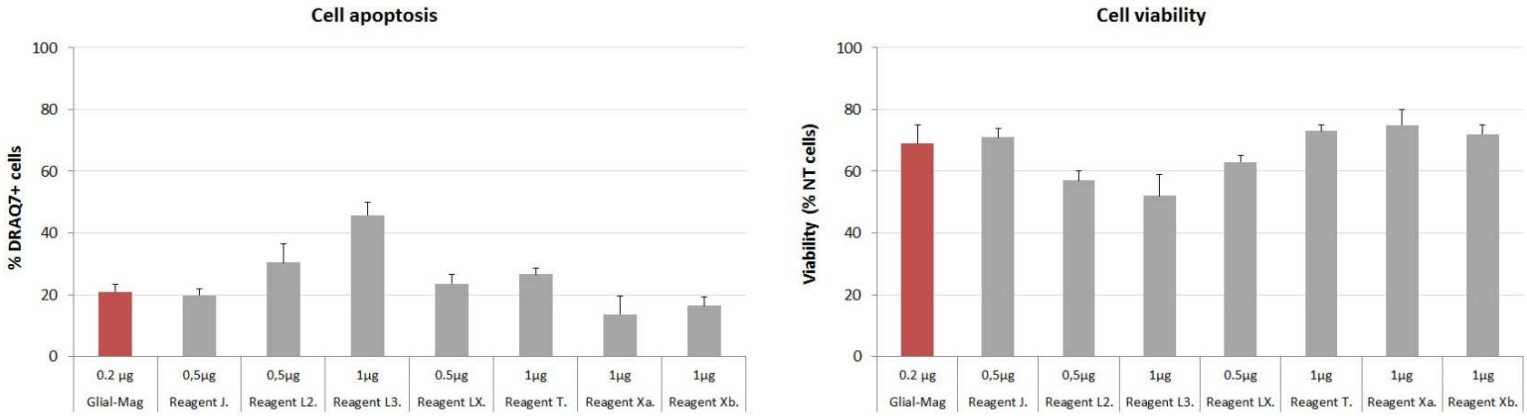

Fig. 5: Transfection of BV2. Complexes of DNA and Glial-Mag were prepared as previously described (0.2 µg DNA / ratio 3.5:1 + 5 µL Glial-Boost per well in a 24-well plate) and DNA transfections with other commercial transfection reagents were performed as recommended by their respective protocols. After 24h, cells were stained using the far-red fluorescent dye that stains the nuclei in dead and permeabilized cells (DRAQ-7) and apoptosis was measured by Flow cytometry. Viability was assessed in parallel with the MTT cell proliferation Assay Kit (OZ Biosciences - Ref # MT01000) and compared to un-treated cells (NT).