

### PGL3 series Plasmid transfection

1. Plate the cells one day prior to transfection and switch to antibiotic-free 10% FBS DMEM medium and place  $1 \times 10^5$  per well in 24-well plates. According to PGL3-Basic, PGL3-Hulc, PGL3-hTERT, PGL3-Control four groups, each group has four duplicate wells, totaling 16 wells.
2. Dilute Lipofectamine 3000 reagent in opti-MEM medium,  $1.5 \mu\text{L}$  Lipofectamine 3000 per tube. Therefore, the medium  $25 \times 38 = 950 \mu\text{L}$  and Lipofectamine 3000  $1.5 \times 38 = 57 \mu\text{L}$  of a total of  $1007 \mu\text{L}$  of the solution were uniformly mixed.
3. Dilute P3000 reagent in opti-MEM medium, prepare according to  $2 \mu\text{L}/\mu\text{g}$  plasmid, and mix each group with pRL-tk plasmid in a 10:1 relationship, ie  $450\text{ng}+45\text{ng}/\text{well}$ , to ensure the total amount is  $500 \text{ ng} / \text{hole}$ . Therefore, there are the following systems:
  - (1) PGL3-Basic: medium  $25 \times 8 = 200 \mu\text{L}$  Basic plasmid  $17 \mu\text{L}$  pRL-tk plasmid  $1 \mu\text{L}$  P3000  $1 \times 8 = 8 \mu\text{L}$
  - (2) For PGL3-Hulc: medium  $25 \times 8 = 200 \mu\text{L}$  hulc plasmid  $11 \mu\text{L}$  pRL-tk plasmid  $1 \mu\text{L}$  P3000  $1 \times 8 = 8 \mu\text{L}$
  - (3) For PGL3-hTERT: medium  $25 \times 8 = 200 \mu\text{L}$  hTERT plasmid  $12 \mu\text{L}$  pRL-tk plasmid  $1 \mu\text{L}$  P3000  $1 \times 8 = 8 \mu\text{L}$
  - (4) For PGL3-control: medium  $25 \times 8 = 200 \mu\text{L}$  Control plasmid  $5.7 \mu\text{L}$  pRL-tk plasmid  $1 \mu\text{L}$  P3000  $1 \times 8 = 8 \mu\text{L}$
4. Mix the solutions in step 2 and step 3 uniformly ( $200 \mu\text{L}$  plus  $200 \mu\text{L}$ ) for 15 minutes, then add  $50 \mu\text{L}$  per well to the  $950 \mu\text{L}$  opti-MEM medium/ The wells were incubated in a 24-well plate in the  $37^\circ \text{C}$ , 5%  $\text{CO}_2$  incubator.
5. After 6H, switch to 10% DMEM medium and continue to culture, and test after 36h.