In-vivo DDMC

In our in-vitro Protocol, a negative phosphate/nitrogen (P/N) charge ratio of protocol are calculated again to near values as 0.089 for DDMC and 0.091as for starting DEAE-dextran, because P content of DNA is 9.3%.
That is why P/N ＝(ｙ×0.093×14×(graft rate+1))/（x ×0.033 ×31）
Here, DNA/DEAE-dextran copolymer＝ｙ/ｘ

P ：9.3%(P cont. of DNA)、N ：3.3 %(N cont. of DEAE-dextran) P atomic weight 31
N atomic weight 14
Graft rate is PMMA/DEAE-dextran (backbone polymer).
In invivo Protocol, a negative phosphate/nitrogen (P/N) charge ratio calculated is better less than 0.09 for optimum conditions.

Example :Tail vein injection(injection in mouse)

1 Prepare 5% glucose (w/v).

2 Dilute 50 μg of DNA into 400 μl of 5% glucose (w/v). Vortex gently and spin down briefly.

3 Add the 70 μl in DDMC (20mg/ml) solution to the DNA solution all at once (important: do not mix the solution in the reverse order).

4 Inject animals (injection in mouse)

For injection of 470 μl into the tail vein for 10 seconds, use of a 1 ml syringe and 26G ½ needle is recommended.