

Transfection rates of HEK 293 and NG 108-15 cells using METAFECTENE and METAFECTENE PRO

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Experimental procedure:

METAFECTENE and METAFECTENE PRO (Biontex Laboratories GmbH, Martinsried, Germany) were examined for transfection efficiency in HEK 293 and NG 108-15 permanent cell lines. The cells were seeded in 6-well-plates. The transfected material was DNA (in pcDNA3.1(+)) coding for the fusion protein μ -opioid-receptor-EGFP (EGFP, enhanced green fluorescence protein). The transfection efficiency was judged by visually counting the number of fluorescent cells, neglecting the intensity of fluorescence. The experimental protocol considered various amounts of DNA and reagents, respectively. Data reflect the outcome of a single experimental set up conducted in duplicate.

DNA (μ g)	Metafectene (μ l)	HEK 293 %	NG 108-15 %	Metafectene Pro (μ l)	HEK 293 %	NG 108-15 %
0.4	2	0	0	2	0	0
0.4	3	0	0	3	0	0
1.0	3	40	5-10	3	40	40
1.0	6	45	5-10	6	< 50	50
2.0	6	60	5-10	6	60	60
2.0	12	55	5-10	12	50	++
3.0	12	++	++	12	++	++
4.0	24	+++	+++	24	+++	+++

++: cells died

+++ : many cells died

Conclusion:

The transfection efficiencies of METAFECTENE and METAFECTENE PRO are approximately identical concerning HEK 293 cells.

The transfection efficiency of METAFECTENE PRO is explicitly higher in NG 108-15 cells as compared to METAFECTENE.