

Table S1. Mean cell size and relative DNA content of host cells and recombinant clones (at steady state).

^a Cell line	^b Mean cell diameter (μm)	^c Relative mean cell volume	^d DNA index
CHO-K1	12.9 \pm 0.1	1	1
5H6	12.7 \pm 0.1	0.96 \pm 0.02	1.03 \pm 0.05
5H6-GC2	13.8 \pm 0.1	1.24 \pm 0.02	1.06 \pm 0.05
5H6-GC7	13.9 \pm 0.1	1.26 \pm 0.02	1.16 \pm 0.06
5H6-GE5	13.8 \pm 0.1	1.23 \pm 0.02	1.10 \pm 0.05
5H6-GF10	14.1 \pm 0.1	1.32 \pm 0.02	1.15 \pm 0.05
5H6-GG8	15.2 \pm 0.1	1.66 \pm 0.03	2.04 \pm 0.17

^a Untransfected host cells (CHO-K1), parental clone (5H6), and subclones on Day 57 post-subcloning, after plateau in expression (steady state). ^b Diameter determined by image analysis (Cedex HiRes). Mean from several thousand cells. Assumes circular cross-section. Estimated uncertainty, \pm 0.1 μm (standard error). ^c Cell volume relative to CHO-K1, calculated from diameter measurement, assuming spherical cells. Errors propagated. ^d DNA index represents DNA content relative to CHO-K1 (see Supplementary Methods in **Supporting Information, Text S1**). Uncertainty (standard error) includes error estimate for non-linearity correction. Note: altered ploidy is not uncommon in recombinant CHO cell lines [1-3].

References

1. Derouazi M, Martinet D, Schmutz NB, Flaction R, Wicht M, et al. (2006) Genetic characterization of CHO production host DG44 and derivative recombinant cell lines. *Biochemical and Biophysical Research Communications* 340: 1069-1077.
2. Jun SC, Kim MS, Hong HJ, Lee GM (2006) Limitations to the development of humanized antibody producing Chinese hamster ovary cells using glutamine synthetase-mediated gene amplification. *Biotechnology Progress* 22: 770-780.
3. Lattenmayer C, Loeschel M, Steinfellner W, Trummer E, Mueller D, et al. (2006) Identification of transgene integration loci of different highly expressing recombinant CHO cell lines by FISH. *Cytotechnology* 51: 171-182.