Cell Culture Vessel Surface Area and Seeding Density

Vessel	Surface area (cm²)	Seeding density*	Cell # at confluency*	Trypsin	Growth medium		
				(mL of 0.05% trypsin, 0.53 mM EDTA). Approx. volume	(mL). Approx. volume		
Dishes (cells/dish)							
35mm	8.8	0.3 x 10 ⁶	1.2 x 10 ⁶	1	2		
60mm	21.5	0.8 x 10 ⁶	3.2 x 10 ⁶	3	5		

Culture plates (cells/well)

8.8 x 10⁶

20.0 x 10⁶

5

10

12

30

2.2 x 10⁶

5.0 x 10⁶

56.7

145

100mm

150mm

6-well	9.6	0.3 x 10 ⁶	1.2 x 10 ⁶	1	1 to 3
12-well	3.5	0.1 x 10 ⁶	0.5 x 10 ⁶	0.4 to 1	1 to 2
24-well	1.9	0.05 x 10 ⁶	0.24 x 10 ⁶	0.2 to 0.3	0.5 to 1.0
48-well	1.1	0.03 x 10 ⁶	0.12 x 10 ⁶	0.1 to 0.2	0.2 to 0.4
96-well	0.32	0.01 10 ⁶	0.04 x 10 ⁶	0.05 to 0.1	0.1 to 0.2

Flasks (cells/flask)

T-25	25	0.7 x 10 ⁶	2.8 x 10 ⁶	3	3–5
T-75	75	2.1 x 10 ⁶	8.4 x 10 ⁶	5	8–15
T-175	175	4.9 x 10 ⁶	23.3 x 10 ⁶	17	35–53
T-225	225	6.3 x 10 ⁶	30 x 10 ⁶	22	45–68

*Seeding density is given for each culture vessel type as follows: Dishes and Flasks: Cells per vessel; Culture plates: Cells per well.

†The number of cells on a confluent plate, dish, or flask will vary with cell type. For this table, HeLa cells were used.