



Basics to determine the ideal volume of culture medium for use in TPP tissue culture vessels

Volume recommendations are guidelines. They do not represent an absolute value. The usual media volume to surface area is 0.2 -0.5 mL/cm², the upper limit is set by gaseous diffusion through the liquid layer. The optimum depends upon the oxygen requirements of the cells. Also more confluent cultures require more media and changing more frequently.

The number of cells on a confluent plate, dish, or flask will vary with cell type. For this table, we give no recommendations, but indicate source of information such as: Freshny R. Culture of animal cells.

1. Tissue Culture Flask

Product No.	Version	Growth area [cm ²]	Medium recom. [mL]	Medium max. [mL]
90025	VENT	25	3 - 8	20
90026	Filter			
90075	VENT	75	8 - 22	75
90076	Filter			
90150	VENT	150	15 - 45	170
90151	Filter			
90300	VENT	300	30 - 85	280
90301	Filter			

2. Tissue Culture Flask with peel-off foil

Product No.	Version	Growth area [cm ²]	Medium recom. [mL]	Medium max. [mL]
90028	Filter	25	3 - 8	20
90078	Filter	75	8 - 15	75
90153	Filter	150	15 - 30	100
90653	Filter, barrier	115	15 - 30	100
90303	Filter	300	30 - 40	280

3. Clipmax







Product No.	Version	Growth area [cm ²]	Medium recom. [mL]	Medium max. [mL]
70010	Filter	10	4 - 6	7

4. Tissue Culture Tube

Product No.	Version	Growth area [cm ²]	Medium recom. [mL]	Medium max. [mL]
91243	Filter	10	2	35
91106	VENT	20	3	15



5. Tissue Culture Test Plate

Product No.	Version	No. of Wells	Growth area [cm ²]	Medium recom. [mL]	Medium max. [mL]
92006 92406		6	9.026	3 - 5	10
92012 92412		12	3.466	1 - 2	5
92024 92424		24	1.864	0.5 – 1	3
92048 92448		48	0.875	0.19 – 0.29	0.2
92096 92696		96	0.322	0.1 – 0.25	0.4
92097 92697		96	0.636	0.1 – 0.25	0.4

6. Tissue Culture Dish

Product No.	Inner-Ø [mm ²]	Growth area [cm ²]	Medium recom. [mL]	Medium max. [mL]
93040	34	9.2	1,8 - 2,7	4
93060	53	22.1	4,5 - 6,6	15
93100	87	60.1	12 - 18	60
93150	137	147.8	29 - 44	155

7. TubeSpin Bioreactor (Suspension cells)

Product No.	Max Volume [mL]	Shaker Ø mm / speed rpm	Medium recom. [mL]	Medium max. [mL]
86050	50	50 / 250	35	50
87015	15	50 / 250	10	15
87017	15	50 / 180	10	15
87050	50	50 / 150	35	50
87056	50	50 / 150	35	50
87450	450	50 / 150	250	450
87600	600	50 / 150	400	600