

Recommended Quantities/Volumes for Hydrogels and Extracellular Matrix Coatings

Purpose: To provide guidance and recommendations for the volumes of hydrogels, extracellular matrix coatings and medium in various cultureware formats.

3D Cell Culture:

Table 1: Volumes of Hydrogel solution recommended for well plate sizes performing 3D cell culture in well format.

Culture Plate Size	Volume of Hydrogel per Well (μL)
96 Well	100
48 Well	200
24 Well	500
12 Well	800
6 Well	2500

Table 2: Volumes of Cell Culture Media recommended for well plate sizes performing 3D cell culture in well format after polymerization of Hydrogel.

Culture Plate Size	Volume of Cell Culture Media (μL) onto surface of Hydrogel
96 Well	150
48 Well	250
24 Well	600
12 Well	1000
6 Well	4000

2D Cell Culture:

Table 3: Volumes of Extracellular Matrix (ECM) Solution recommended for well plate sizes using 2D cell culture in well format.

Culture Plate Size	Volume of ECM in Well (μL)
96 Well	50
48 Well	150
24 Well	300
12 Well	500
6 Well	1600

Table 4: Volumes of Cell Culture Media recommended for well plate sizes performing 2D cell culture in well format after coating with Extracellular Matrix (ECM).

Culture Plate Size	Volume of Cell Culture Media (μL) onto surface of ECM Coating
96 Well	150
48 Well	250
24 Well	600
12 Well	1000
6 Well	4000

3D Cell Culture with Inserts:

Table 5: Volumes of Hydrogel solution and Cell Culture Media required for well plate sizes performing 3D cell culture with inserts.

Culture Plate Size	Volume of Hydrogel per Insert (μL)	Volume of Cell Culture Media (μL) added outside the insert	Volume of Cell Culture Media (μL) added to surface of Hydrogel in the Insert
96 well	50	250	50
48 well	75	500	80
24 Well	100	1000	100
12 Well	500	1400	400
6 Well	1000	2000	1000

2D Cell Culture with Inserts:

Table 6: Volumes of Extracellular Matrix (ECM) solution and Cell Culture Media required for well plate sizes performing 2D cell culture with inserts.

Culture Plate Size	Volume of (ECM) per Insert (μL)	Volume of Cell Culture Media (μL) added outside the insert	Volume of Cell Culture Media (μL) added to surface of ECM in the Insert
96 well	25	250	50
48 well	40	500	80
24 Well	50	1000	100
12 Well	250	1400	400
6 Well	600	2000	1000