

Example of preparing the dilutions of antimicrobial agents used in agar dilution. (NCCLS M100-S12 table 5)

Step	Concentration ug/ml.	Source	Volume + Solvent		Upscale to user vol.		Final vol. of solvent ml.	Final concentration At 1:10 dilution i agar	Vol. media ml.	Vol. solution ml.	
			ml.	ml.	ml.	ml.					
1	5120	Stock	-	-				512			
2	5120	Step 1	1	1				256			
3	5120	Step 1	1	3				128			
4	1280	Step 3	1	1				64			
5	1280	Step 3	1	3	3	+	9	12	32	90	10
6	1280	Step 3	1	7	3	+	21	24	16	90	10
7	160	Step 6	1	1	6	+	6	12	8	90	10
8	160	Step 6	1	3	3	+	9	12	4	90	10
9	160	Step 6	1	7	3	+	21	24	2	90	10
10	20	Step 9	1	1	6	+	6	12	1	90	10
11	20	Step 9	1	3	3	+	9	12	0.5	90	10
12	20	Step 9	1	7	3	+	21	24	0.25	90	10
13	2.5	Step 12	1	1				0.125			

Antimicrobial: *Erythromycin*.

Antimicrobial gradient: **0.25 – 32 ug/ml**.

Concentration of the stock solution: **1280ug/ml**.

Volume of antimicrobial to be weight: $(1280\text{ug/ml} * 6\text{ml}) / 1280\text{ug/ml} * 80 = 102.4\text{mg}$

Volume of Agar: **90ml**

Volume of antimicrobial solutions (10% of agar vol):**10ml**.

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