

Materials List for

Methods for Embedding Cell-Free Protein Synthesis Reactions in Macro-Scale Hydrogels

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Citation

Kavil, S., Laverick, A., Whitfield, C.J., Banks, A.M., Howard, T.P. Methods for Embedding Cell-Free Protein Synthesis Reactions in Macro-Scale Hydrogels. *J. Vis. Exp.* (196), e65500, doi:10.3791/65500 (2023).

Date Published

June 23, 2023

DOI

10.3791/65500

URL

jove.com/video/65500

Materials

Name	Company	Catalog Number	Comments
Material			
3-PGA	Santa Cruz Biotechnology	sc-214793B	
Acetic Acid	Sigma-Aldrich	A6283	
Agar	Thermo Fisher Scientific	A10752.22	
Agarose	Severn Biotech	30-15-50	
Amino Acid Sampler Kit	VWR	BTRABR1401801	
ATP	Sigma-Aldrich	A8937-1G	
cAMP	Sigma-Aldrich	A9501-1G	
Coenzyme A (CoA)	Sigma-Aldrich	C4282-100MG	
CTP	Alfa Aesar	J14121.MC	
DTT	Thermo Fisher Scientific	R0862	
Folinic Acid	Sigma-Aldrich	F7878-100MG	
GTP	Carbosynth	NG01208	
HEPES	Sigma-Aldrich	H4034-25G	
K-glutamate	Sigma-Aldrich	G1149-100G	
Lysozyme	Sigma-Aldrich	L6876-1G	
Mg-glutamate	Sigma-Aldrich	49605-250G	
NAD	Sigma-Aldrich	N6522-250MG	
PEG-8000	Promega	V3011	
Potassium Hydroxide (KOH)	Sigma-Aldrich	757551-5G	
Potassium Phosphate Dibasic (K ₂ HPO ₄)	Sigma-Aldrich	P3786-500G	
Potassium Phosphate Monobasic (KH ₂ PO ₄)	Sigma-Aldrich	RDD037-500G	
Protease Inhibitor cocktail	Sigma-Aldrich	P2714-1BTL	
Qubit Protein concentration kit	Thermo Fisher Scientific	A50668	
Rossetta 2 DE 3 E.coli	Sigma-Aldrich	71397-3	

Sodium Chloride (NaCl)	Sigma-Aldrich	S9888-500G	
Spermidine	Sigma-Aldrich	85558-1G	
Tryptone	Thermo Fisher Scientific	211705	
Tris	Sigma-Aldrich	GE17-1321-01	
tRNA	Sigma-Aldrich	10109541001	
UTP	Alfa Aesar	J23160.MC	
Yeast Extract	Sigma-Aldrich	Y1625-1KG	
Equipment			
1.5 mL microcentrifuge tubes	Sigma-Aldrich	HS4323-500EA	
10K MWCO dialysis cassettes	Thermo Fisher Scientific	66381	
15 mL centrifuge tube	Sarstedt	62.554.502	
50 mL centrifuge bottles	Sarstedt	62.547.254	
500 mL centrifuge bottles	Thermo Fisher Scientific	3120-9500	
Alpha 1-2 LD Plus freeze-dryer	Christ	part no. 101521, 101522, 101527	
Benchtop Centrifuge	Thermo Fisher Scientific	H-X3R	
Black 384 well microtitre plates	Fischer Scientific	66	
Cuvettes	Thermo Fisher Scientific	222S	
Elga Purelab Chorus	Elga	#####	
Eppendorf Microcentrifuge 5425R	Eppendorf	EP00532	
High Speed Centrifuge	Beckman Coulter	B34183	
JMP license	SAS Institute	15	
Magnetic Stirrer	Fischer Scientific	15353518	
Parafilm	Ancor	PM-966	
Photospectrometer (Biophotometer)	Eppendorf	16713	
Pipettes and tips	Gilson	#####	
Precision Balance	Sartorius	16384738	
Qubit 2.0 Fluorometer	Thermo Fisher Scientific	Q32866	
Shaking Incubator	Thermo Fisher Scientific	SHKE8000	
Sonic Dismembrator (Sonicator)	Thermo Fisher Scientific	12893543	
Static Incubator	Sanyo	MIR-162	
Syringe and needles	Thermo Fisher Scientific	66490	
Thermo max Q8000 (Shaking Incubator)	Thermo Fisher Scientific	SHKE8000	
Varioskan Lux platereader	Thermo Fisher Scientific	VLBL00GD1	
Vortex Genie 2	Cole-parmer	OU-04724-05	
VWR PHenomenal pH 1100 L, pH/mv/°c meter	VWR	662-1657	