

BIOTECHNOLOGY LAB CHEMICAL REQUIREMENTS

Date: 25:1 :2025

S. No	Chemical Requirement	Quantity
1	LB Broth	250 ml
2	Chloroform	100 ml
3	Lysis solution	100 ml
4	SDS - Sodium dodecyl sulfate	100 ml
5	Tris-Hcl	500 mg
6	Sodium acetate	500 mg
7	Isoamyl alcohol	500 ml
8	TE Buffer ph 8.0	100 ml
9	Proteinase	25 mg
10	RNase	25 mg
11	Solution I (Resuspension Buffer)	100 ml
12	Solution III (Neutralization Buffer)	500 ml
13	Potassium acetate	500gm
14	Glucose	110mg
15	Isopropanol	500ml
16	Bacterial culture (E. coli)	200ch-30 ml
17	E. coli culture (DH5 α or TOP10 strain)	21x50 ul
18	Calcium chloride solution	300ml
19	Plasmid DNA isolation kit (pUC19 or any recombinant plasmid)	1kit

20	Restriction enzyme (EcoRI, HindIII, BamHI)	1X0.5ML
21	Restriction enzyme buffer (supplied with the enzyme)	250ml
22	T4 DNA ligase kit	1x 1500 units
23	Ligation buffer	2x1ml
24	Gel loading dye	5x1ml
25	Restriction digested T-vector & pcr product (DNA) kit	1kit
26	Tris Acetate	500 ml
27	Magnesium Acetate	500 g
28	DTT	100 g
29	Egg Albumin Powder	500gm
30	Benedict`s Reagent Quantitative	500 ml
31	Sodium Azide	100 ml
32	Trypan Blue 0.4% Solution	4x125ml
33	Mercuric chloride	500ml
34	Sodium hypochlorite	100gm
35	Murashige and Skoog (MS) medium	100gm
36	PH buffer Powder 5.6- 5.8	25 gm
37	Cellulase (e.g., Cellulase R-10 or Onozuka R-10)	25 gm
38	Pectinase (optional, depending on plant species)	25gm
39	Macerozyme	10g
40	Ca ²⁺ - and Mg ²⁺ - containing buffer solution	100ml

41	Eosin y	100 ml
42	Fluorescein diacetate (FDA)	250 gm
43	Mannitol	100 ml
44	DAPI (4',6-diamidino-2-phenylindole)	10mg
45	Hoechst Stain	100ml
46	Propidium Iodide	100ml
47	Acid fuchsine	50ml
48	Antifade mounting media	250gm
49	Formalin	100ml
50	Methanol	100ml
51	Powdered base medium (e.g., DMEM, RPMI, or MEM)	250 ml
52	Vitamins (e.g., Thiamine, Pyridoxine)	25mg
53	Monobasic Sodium Phosphate Monohydrate	100ml
54	Dibasic sodium phosphate	100ml
55	Ph 10.0 buffer powder	50ml
56	Ph 8.0 buffer powder	25mg
57	Agarose	100gm
58	Tris base	50ml
59	Uv transilluminator	1
60	Bromophenol blue	50ml
61	Ninhydrin	50ml
62	n-butanol	100ml
63	potassium dihydrogen phosphate	250gm

64	Vertox	1
65	Ammonium chloride	100ml
66	Ammonia	250ml