

TABLE 3 LIST OF CHEMICALS AND REAGENTS

S. No	Name of Item (Reagents)	Technical Notes	Quantity*	Unit Price PKR**	Total Price PKR**
1	Diethyl ether, Puriss, ACS reagent;	Assay ≥99.0%, anhydrous, ACS reagent, contains BHT as inhibitor capacity 2,5 L	30		
2	Ethanol 96%	assay ≥96.0% 2.5 L	30		
3	Ethanol, Puriss, ACS reagent;	≥99.8% (GC), absolute, puriss. 2.5L	6		
4	Phenolphthalein	ACS reagent powder Bags 100g	9		
5	Potassium hydroxide 0.1N (Ethanol solution standardized)	0.1 mol/L (1 N) in ethanol, reagent USP, ready-to-use volumetric solution for titration in non-aqueous media. 1 L bottle	9		
6	Chloroform stabilized with ethanol	contains ethanol as stabilizer, ACS reagent, ≥99.8% bottle 2.5L	12		
7	Acetic acid glacial	≥99% Bottle 2.5L	18		
8	Starch powder	puriss. p.a., from potato, reagent ISO, reagent Ph. Eur., soluble (gr.)	300		
9	Sodium thiosulphate 0.01 N (standardized solution)	c(Na ₂ S ₂ O ₃) = 0.01 mol/l (0.01 N), concentrate for preparing 1000 ml volumetric solution for titration	6		
10	Water double-distilled grade	HPLC grade 1.5L bottle	12		
11	Water double-distilled grade for molecular grade	molecular grade 2.5L bottle	18		
12	Sodium Iodide	ACS reagent, ≥99.5% (gr.)	300		
13	Isooctane UV grade	for spectroscopy 2.5L bottle	12		
14	Hexane ACS reagent	≥99% (GC), ACS reagent 2.5L bottle	30		
15	Potassium hydroxide, reagent grade, 90%;	ACS reagent, ≥85%, pellets (Kg.)	6		
16	Methanol, anhydrous, ACS reagent;	≥99.8%, anhydrous 1L bottle	6		
17	Sodium Hydroxide	ACS reagent, ≥97.0%, pellets (kg.)	15		
18	β-cholestanol, (5α-Cholestan-3β-ol); internal standard	pure standard, powder, ≥95% (mg.)	600		
19	Sodium sulphate anhydrous	ACS reagent, ≥99.0%, anhydrous, granular (kg.)	60		
20	1-eicosanol, internal standard for aliphatic alcohols	pure standard, powder, ≥98% (mg.)	600		
21	2,7-dichlorofluorescein, suitable for fluorescence, ≥95% (HPLC)	suitable for fluorescence, ≥95% (gr.)	300		
22	Silylating mixture I according to Sweeley	Chlorotrimethylsilane hexamethyldisilazane mixture, HMDS + TMCS (ml.)	300		
23	Methanol, HPLC grade	≥99.8% (GC), HPLC grade, suitable for HPLC 2.5L bottle	24		

24	Acetic acid HPLC grade	≥99.99% (GC), HPLC grade, suitable for HPLC 2.5L bottle	6		
25	Syringic acid standard	pure standard, powder, ≥95% (gr.)	3		
26	Hydroxy tyrosol standard	pure standard, powder, ≥95% (gr.)	3		
27	Acetonitrile HPLC gradient grade	Acetonitrile, ≥99.9% (GC), suitable for UHPLC 2,5L bottle	24		
28	Silica gel, for preparative chromatography	high-purity grade, 70-230 mesh 1kg	30		
29	Lauryl arachidate (internal standard for waxes).	pure standard, powder, ≥98% (mg)	300		
30	Methyl heptadecanoate, (internal standard for methyl and ethyl esters).	pure standard, powder, ≥98% (mg)	300		
31	Acetone HPLC grade	suitable for HPLC, ≥99.8% 2.5L bottle	30		
32	Colesta-3,5-diene	pure standard, powder, ≥95% (mg)	75		
33	α-tocopherol standard	(±)-α-Tocopherol, ≥95% (mg)	300		
34	Butyl hydroxy Toluene	≥99.0% (GC), powder (gr.)	1500		
35	Ascorbic acid	ACS reagent, ≥99% (gr.)	300		
36	Isopropanol HPLC grade	99.9%, suitable for HPLC 2.5L bottle	18		
37	Pancreatic Lipase lyophilized	Lipase from porcine pancreas, Type II, ≥125 units/mg protein (using olive oil (30 min incubation)), 30-90 units/mg protein (using triacetin) (gr.)	225		
38	tris(hydroxymethyl)aminomethane	Solid, ACS reagent, for analysis buffer substance 1 pack 100g.	27		
39	HCl 37%	37%, ACS reagent 2.5L bottle	36		
40	Sodium Cholate, enzyme grade	from bovine and/or ovine bile, ≥99% 25g.1 pack	18		
41	Calcium chloride dihydrate	ACS reagent, ≥99% (kg.)	45		
42	Folin Ciocalteu reagent	2 M (with respect to acid) (ml.)	9000		
43	Silica gel for desiccator	Silica gel beads adsorbent with color indicator	45		
44	CTAB reagent for DNA extraction	CTAB buffer for the extraction of fungal DNA ([100 mM Tris-Cl, pH 8.0; 1.4 M NaCl; 20 mM EDTA, pH 8.0; 2% cetyltrimethylammonium bromide (w/v); 0.2% β-mercaptoethanol (v/v)] KITS	108		
45	Chloroform isoamyl alcohol	2,5L bottle	54		
46	isopropanol/ethanol	2,5L bottle analytical grade	54		
47	Marker (size 100-10,000 bp)	DNA ladder (vials)	27		
48	agarose for gel electrophoresis	100 g. per pack	54		
49	TAE electrophoresis buffers	5L bottle	54		

50	EDTA buffer (40 mM Tris, 20 mM CH3COOH, and 1 mM Na2EDTA; pH 8.0)	Kg.	18		
51	Staining agents (e.g., ethidium bromide, SYBR Green, or red)	Dye colorant - example: GelRed (Biotium, Hayward CA) Kg.	18		
52	dNTPs kit mix	1 ml, Thermo Fisher Scientific	45		
53	Taq polymerase have different company to produce	Green GoTaq Flexi Buffer (Mg2+ free), MgCl2, GoTaq DNA polymerase (example) (unit)	4500		
54	RT-PCR kit, primers with and without probes	kits	36		
55	serological kit (including ELISA plates for reading and chemical compounds).		45		
56	RST31 -RST 33	primers for Xf primers for Verticillium	63		
57	Primers	ITS 5: 5'-GGAAGTAAAAGTCGTAACAAGG-3'; ITS4: 5'-TCCTCCGTTATTGATATGC-3'	90		
58	KIT for extract nucleic acid from plant	different company (in this case exclude more toxic compound)	90		
59	Agar bact.	Kg.	54		
60	Agar tech.	Kg.	54		
61	Glycerol 99% use for storage	2.5 L bottle	54		
62	Sucrose	Kg.	54		
63	CaCO3	Kg.	90		
64	Peptone bacto	Kg.	54		
65	Anhydrous dibasic potassium phosphate	Kg.	54		
66	Monobasic potassium phosphate	Kg.	108		
67	Saccharose	Kg.	108		
68	Sodio carbonato anidro	Kg.	108		
69	Agarose LE	Kg.	54		
70	Czapek-DOX Broth	Kg.	54		
71	Malt extract Agar	Kg.	54		
72	Potato Dextrose Agar (PDA)	Kg.	54		
73	loops DIAM. 3mm in Platinum Iridio (90/10)		90		
74	Loops for bacteria and fungi		900		
				Total price	0

Notes: This is a market analysis exercise, not a purchase bid

Quantity* Estimated quantity for project duration.

Unit and Total price in PKR** Indicative price should be valid for 12 months. Specific quotations will be requested during purchase exercise