

Materials List for

Elucidating β -1,3-Glucanase and Peroxidase Physicochemical Properties of Wheat Cell Wall Defense Mechanism against *Diuraphis noxia* Infestation

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Materials

Name	Company	Catalog Number	Comments
10 kDa Centrifuge concentrating membrane device	Sigma-Aldrich	R1NB84206	For research use only. Not for use in Diagnostic procedures. For concentration and purification of biological solutions.
2 g Laminaribiose	Megazyme (Wicklow, Ireland)	O-LAM2	High purity laminaribiose for use in research, biochemical enzyme assays and in vitro diagnostic analysis.
3 g Laminaritriose	Megazyme (Wicklow, Ireland)	O-LAM3	High purity laminaritriose for use in research, biochemical enzyme assays and in vitro diagnostic analysis.
3,5 Dinitro salicylic acid	Sigma-Aldrich	D0550	Used in colorimetric determination of reducing sugars
4 g Laminaritetraose	Megazyme (Wicklow, Ireland)	O-LAM4	High purity laminaritetraose for use in research, biochemical enzyme assays and in vitro diagnostic analysis.
5 g Laminaripentaose	Megazyme (Wicklow, Ireland)	O-LAM5	High purity laminaripentaose for use in research, biochemical enzyme assays and in vitro diagnostic analysis.
95% Absolute ethanol	Sigma-Aldrich	107017	Ethanol absolute for analysis
acetic acid	Sigma-Aldrich	B00063	Acetic acid glacial 100% for analysis (contains acetic acid)
Azo-CM-Cellulose	Megazyme (Wicklow, Ireland)	S-ACMC	The polysaccharide is dyed with Remazolbrilliant Blue R to an extent of approx. one dye molecule per 20 sugar residues.
Beta glucan (barley)	Megazyme (Wicklow, Ireland)	G6513	A powdered substrate, less soluble in water. Used in determining β -1,3-glucanase activity.

Bio-Rad Protein Assay Dye	Bio-Rad Laboratories, South africa	500-0006	Colorimetric assay dye, concentrate, for use with Bio-Rad Protein Assay Kits I and II
Bovine serum albumin (BSA)	Gibco Europe	810-1018	For Laboratory use only
Citrate acid	Sigma-Aldrich	C0759	For Life Science research only. Not for use in diagnostic procedures.
CM-curdlan	Megazyme (Wicklow, Ireland)	P-CMCUR	Powdered substrate for determining β -1,3-glucanase activity. Insoluble in water.
D-Glucose	Sigma-Aldrich	G8270	For Life Science research only. Not for use in diagnostic procedures.
Guaiacol	Sigma-Aldrich	G5502	Oxidation indicator. Used for determining peroxidase activity.
Hydrogen peroxide	BDH Laboratory Supplies, England	10366	Powerful oxidising agent.
Mikskaar Professional Substrate	Mikskaar (Estonia)	NI	Peat moss-based seedling substrate.
Multifeed fertiliser (5.2.4 (43))	Multifeed Classic	B1908248	A water soluble fertiliser for young developing plants and seedlings with a high phosphorus (P) requirement to ensure optimum root development.
Naphthol	Merck, Germany	N2780	Undergoes hydrogenations in the presence of a catalyst.
Phenol	Sigma-Aldrich	33517	Light sensitive. For R&D use only. Not for drug, household, or other uses. SDS available
Potassium sodium tartrate tetrahydrate (Rochelle salt)	Sigma-Aldrich	S2377	used in the preparation of 3,5-dinitrosalicylic acid solution used in the determination of the reducing sugar.
Silica plate (TLC Silica gel 60 F ₂₅₄)	Sigma-Aldrich	60778-25EA	Silica gel matrix, with fluorescent indicator 254 nm
Sodium hydroxide	Sigma-Aldrich	S8045	For R&D use only. Not for drug, household, or other uses.
Sodium metabisulfite	Sigma-Aldrich	31448	Added as an antioxidant during the preparation of 3,5-dinitrosalicylic acid solutions.
Sodium phosphate dibasic heptahydrate	Sigma-Aldrich	S9390	Used as a buffer solution in biological research to keep the pH constant.
Sodium phosphate monobasic heptahydrate	Sigma-Aldrich	71500	An inorganic compound, which is soluble in water. Used as a reagent in the development of silicate-based grouts.
Statistical analysis software	TIBCO Statistica	version 13.1	
Sulfuric acid	Merck, Darmstadt, Germany	30743	Sulfuric acid 95-97% for analysis of Hg, ACS reagent.
Tris-HCl	Sigma-Aldrich	10812846001	Buffering agent in incubation mixtures. It has also been used as a component of lysis and TE (Tris-EDTA) buffer. For life science research only. Not for use in diagnostic procedures.
UV-Visible Spectrophotometer	GENESYS 120		
NI = not identified.			