

Materials List for:

High-throughput Screening of Carbohydrate-degrading Enzymes Using Novel Insoluble Chromogenic Substrate Assay Kits

Julia Schückel¹, Stjepan Krešimir Kračun¹, William G. T. Willats²

¹Department for Plant and Environmental Sciences, University of Copenhagen

²School of Agriculture, Food and Rural Development, Newcastle University

*These authors contributed equally

Correspondence to: Julia Schückel at jusch@plen.ku.dk, William G. T. Willats at william.willats@newcastle.ac.uk

URL: <https://www.jove.com/video/54286>

DOI: [doi:10.3791/54286](https://doi.org/10.3791/54286)

Materials

Name	Company	Catalog Number	Comments
assay kit plates	Glycospot		customized assay kit plates
activation solution	Glycospot		for activating CPH substrates
350 ml receiver plate spacer block for vacuum manifold	Pall Corporation	5015	spacer block
96-well MultiScreen HV filter plate, 0.45 µm, clear, non-sterile	Millipore	MSHVN4510	assay plate
96-Well Microplates, Polypropylene	Greiner Bio-One	651201	collection plate after washing the substrates
Nunc MicroWell 96-Well Microplates	Thermo Scientific	269620	product plate
Diaphragm pump MZ 2 NT	Vacuubrand	732000	vacuum pump used with the vacuum manifold
Infors HT Ecotron	Infors HT	4950132 (Buch & Holm)	horizontal shaker
SpectraMax M5	Molecular Devices	10067-750 (VWR)	96-well plate absorbance reader
Vacuum manifold	Pall Corporation	5017	vacuum manifold
endo-cellulase (EGII) (<i>Trichoderma longibrachiatum</i>)	Megazyme	E-CELTR	cellulase [<i>cel</i>]
endo-β-1,4-mannanase (<i>Cellvibrio japonicus</i>)	Megazyme	E-BMACJ	mannanase [<i>man</i>]
endo-β-1,3-glucanase (<i>Trichoderma spp.</i>)	Megazyme	E-LAMSE	β-glucanase [<i>glu</i>]
endo-β-1,4-D-galactanase (<i>Aspergillus niger</i>)	Megazyme	E-EGALN	galactanase [<i>gal</i>]
endo-β-1,4-xylanase M4 (<i>Aspergillus niger</i>)	Megazyme	E-XYAN4	xylanase [<i>xy</i>]
endo-xyloglucanase (GH5) (<i>Paenibacillus sp.</i>)	Megazyme	E-XEGP	xyloglucanase [<i>xg</i>]
α-amylase (<i>Bacillus licheniformis</i>)	Megazyme	E-BLAAM	amylase [<i>amy</i>]