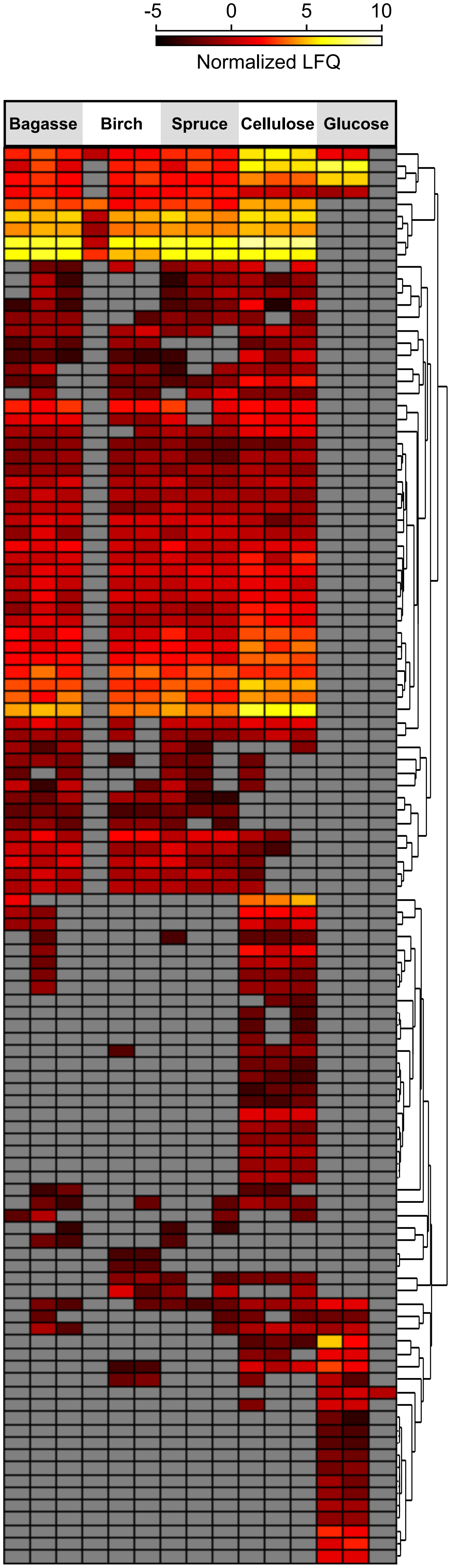
Quantitative comparison of the biomass-degrading enzyme repertoires of five filamentous fungi

Magnus Ø. Arntzen[1*#], Oskar Bengtsson[1#], Anikó Várnai[1], Francesco Delogu[1], Geir Mathiesen[1], Vincent G. H. Eijsink[1]

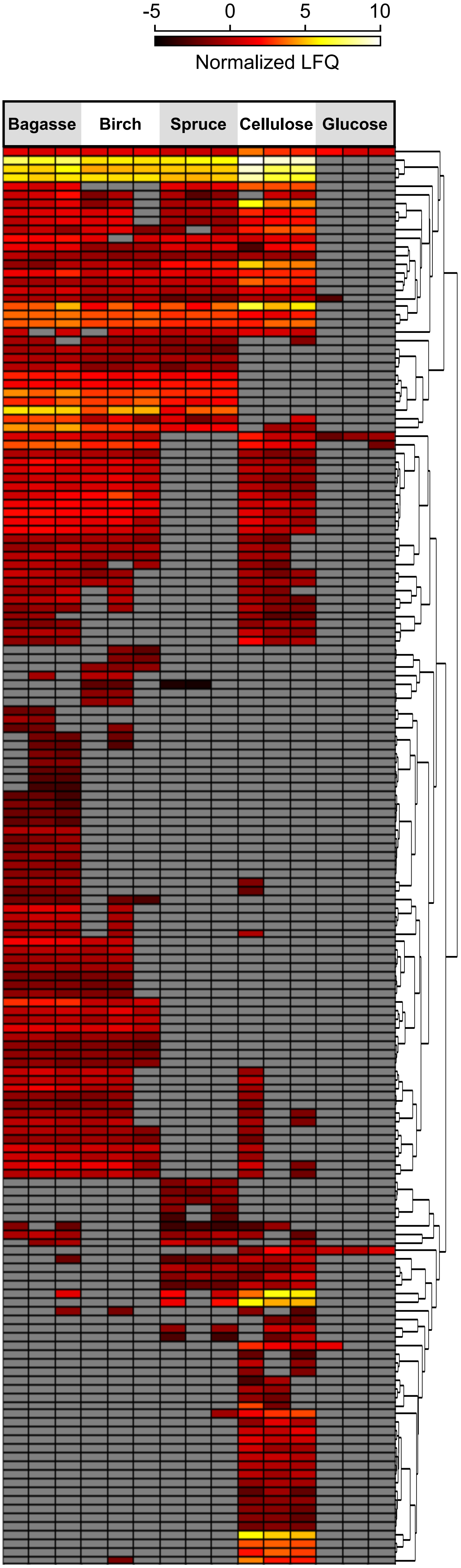
[1]Faculty of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences (NMBU), Ås, Norway.

Fig S1 - Aspergillus terreus



Uniprot	CAZy	Protein name	Predicted secreted
Q0CFW4	GH12	Endoglucanase I	🟩
Q0CPK9	GH15;CBM20	Glucoamylase	🟩
Q0CNF3		Uncharacterized protein	🟩
Q0CEE5	CBM42;GH54	Probable alpha-L-arabinofuranosidase B	🟩
Q0CMT1	CBM1;GH5_5	Exoglucanase 1	🟩
Q0CSC4	CBM1;GH10	Beta-xylanase	🟩
Q0C7F5	CBM1;GH62	Alpha-L-arabinofuranosidase	🟩
Q0CMT2	GH7;CBM1	Probable 1,4-beta-D-glucan cellobiohydrolase B	🟩
Q0CBM8	GH10	Probable endo-1,4-beta-xylanase C	🟩
Q0CFQ7		Catalase	🟩
Q0C7R4	CE16	Uncharacterized protein	
Q0CUG5	GH5_7	Probable mannan endo-1,4-beta-mannosidase A-2	🟩
Q0CTD7	GH3	Probable beta-glucosidase A	🟩
Q0CQE9		Uncharacterized protein	🟩
Q0CAX7		Uncharacterized protein	🟩
Q0CAZ7		Peptide hydrolase	🟩
Q0CFW5	GH3	Uncharacterized protein	🟩
Q0CDW9	CE16;GH20	Uncharacterized protein	🟩
Q0CMA7	GH31	Probable alpha/beta-glucosidase agdC	🟩
Q0CCD0	GH5_7	Probable mannan endo-1,4-beta-mannosidase A-1	🟩
Q0CNM5	CBM1;CE5	Acetylxylan esterase	🟩
Q0CSA7	CBM1;GH27	Alpha-galactosidase	🟩
Q0CV78	GH131	Uncharacterized protein	🟩
Q0CUG8	CE10	Carboxylic ester hydrolase	🟩
Q0CK20		Uncharacterized protein	🟩
Q0CTK8		Uncharacterized protein	
Q0CGK2	GH10	Beta-xylanase	🟩
Q0CZS5	GH10	Beta-xylanase	🟩
Q0C7Z1	GH43_36	Uncharacterized protein	🟩
Q0D0B8	GH35	Beta-galactosidase	🟩
Q0CVU1	PL4_1	Probable rhamnogalacturonate lyase A	🟩
Q0CWM0	CBM1;CE1	Uncharacterized protein	🟩
Q0CNM6	GH74;GH74;GH74;CBM1	Uncharacterized protein	🟩
Q0C932	GH5_4;CBM46	Uncharacterized protein	🟩
Q0CUE6		Uncharacterized protein	🟩
Q0C912		Lipase	🟩
Q0D148	GH17	Uncharacterized protein	🟩
Q0CRJ6	GH43_6	Probable arabinan endo-1,5-alpha-L-arabinosidase C	🟩
Q0CC79	GH7;CBM1	Glucanase	🟩
Q0C8J1	AA8;AA8	Uncharacterized protein	🟩
Q0CMZ3		Neutral protease 2 homolog ATEG_04941	🟩
Q0CDW1	PL1_7	Pectate lyase B	
Q0CLL8	AA9	Endoglucanase IV	🟩
Q0CFS3	GH11	Probable endo-1,4-beta-xylanase A	🟩
Q0CFP1	CBM1;GH6	Probable 1,4-beta-D-glucan cellobiohydrolase C	🟩
Q0CQ24	CBM1;AA9	Uncharacterized protein	🟩
Q0CC84	GH7	Probable endo-beta-1,4-glucanase celB	🟩
Q0C8U0	GH12	Endoglucanase I	🟩
Q0CVX4	CBM35;GH27	Probable alpha-galactosidase D	🟩
Q0CJP9	GH67	Probable alpha-glucuronidase A	🟩
Q0CZJ3	GH93	Uncharacterized protein	🟩
Q0CX14		Uncharacterized protein	🟩
Q0CI21		Probable feruloyl esterase B-2	🟩
Q0CCF8	PL3_2	Probable pectate lyase F	🟩
Q0CYL8	PL1_4	Probable pectin lyase A (PLA)	🟩
Q0CBM7		Probable feruloyl esterase A	🟩
Q0CU37	CE3	Uncharacterized protein	🟩
Q0CEL6		Uncharacterized protein	🟩
Q0C8B3	GH62	Probable alpha-L-arabinofuranosidase axhA	🟩
Q0CF74	AA7	Uncharacterized protein	🟩
Q0CKU3	GH29	Uncharacterized protein	
Q0CXA9		Uncharacterized protein	🟩
Q0CHV8	GH72;CBM43	1,3-beta-glucanosyltransferase	
Q0D011	GH31	Alpha-glucosidase	🟩
Q0CF36	AA7	Uncharacterized protein	🟩
Q0CTQ7	GH53	Probable arabinogalactan endo-beta-1,4-galactanase A	🟩
Q0CRC9	GH12	Probable xyloglucan-specific endo-beta-1,4-glucanase A	🟩
Q0CIE1		Superoxide dismutase [Cu-Zn]	🟩
Q0CR38		Uncharacterized protein	🟩
Q0CJQ7	AA9	Uncharacterized protein	🟩
Q0CE26		Uncharacterized protein	🟩
Q0CGA6	CBM20;AA13	Uncharacterized protein	🟩
Q0CFL8	AA3_2	Uncharacterized protein	🟩
Q0CF08		Thioredoxin	
Q0CAE1		Carboxypeptidase	🟩
Q0C8H2		Uncharacterized protein	🟩
Q0CDF5	CBM20;GH13_1	Alpha-amylase A	
Q0CUW9	GH13_1	Alpha-amylase	🟩
Q0CDT5	GH72	1,3-beta-glucanosyltransferase	🟩
Q0CVY4		Uncharacterized protein	🟩
Q0CH63		Uncharacterized protein	🟩
Q0CPK2	GH27;CBM13	Probable alpha-galactosidase A	🟩
Q0CEU4	CBM1;AA9	Probable endo-beta-1,4-glucanase D	🟩
Q0D076	GH47	Probable mannosyl-oligosaccharide alpha-1,2-mannosidase 1B	🟩
Q0CER7	GH43_30	Uncharacterized protein	🟩
Q0C8B2	CBM6;GH43_29	Uncharacterized protein	🟩
Q0CW01	CE5	Probable cutinase 4	🟩
Q0CZB3	CE10	Carboxylic ester hydrolase	🟩
Q0CI67	GH3	Probable beta-glucosidase F	🟩
Q0CLA1		Uncharacterized protein	🟩
Q0C8V9	CE10	Probable dipeptidyl-peptidase 5	🟩
Q0CM99	GH16	Uncharacterized protein	🟩
Q0CEY6	GH28	Polygalacturonase-4	🟩
Q0CGR7		Uncharacterized protein	🟩
Q0D182		Uncharacterized protein	🟩
Q0CJF2		Aspergillopepsin F	🟩
Q0C881	GH13_1;CBM20	Alpha-amylase	🟩
Q0CL85		Uncharacterized protein	🟩
Q0CV89	CBM22	Uncharacterized protein	
Q0CLB5	GH12	Endoglucanase A	🟩
Q0CG22		Uncharacterized protein	🟩
Q0CFC5		ATP synthase subunit beta	
Q0CES7		Uncharacterized protein	🟩
Q0CXB5	GH75	Endo-chitosanase	🟩
Q0CJJ5	GH25	N,O-diacetylmuramidase	🟩
Q0CZY4	GH16	Uncharacterized protein	🟩
Q0CG19		Carboxypeptidase	
Q0CPZ0		Uncharacterized protein	🟩
Q0CB64		Uncharacterized protein	🟩
Q0C9A9		Uncharacterized protein	🟩
Q0CYJ2		Allergen Asp f 15	🟩
Q0C7P6	GH17	Probable glucan endo-1,3-beta-glucosidase eglC	🟩

Fig S2 - Trichoderma reesei



Uniprot	CAZy	Protein name	Predicted secreted
G0R866	GH15;CBM20	Glucoamylase	🟩
G0RVK1	GH7;CBM1	Glucanase	🟩
G0RB58	CBM1;GH6	Glucanase	🟩
G0R6T8	AA9;CBM1	Glycoside hydrolase family 61	🟩
Q7Z9M7	AA9	Endoglucanase-7	🟩
G0RVK4	GH30_7	Glycoside hydrolase family 5	🟩
G0RVK3	CBM1	Non-Catalytic module family expansin	🟩
G0RQ16	GH16	Predicted protein	🟩
G0RCG3	CE1	Predicted protein	🟩
G0RTC0	-	Cell wall protein	
G0RU13	GH16	Glycoside hydrolase family 16	🟩
G0RG24	GH3	Glycoside hydrolase family 3	🟩
G0RT76	GH30_5	Glycoside hydrolase family 5	🟩
G0RC85	GH5_7	Glycoside hydrolase family 5	🟩
G0RV92	GH30_7	Glycoside hydrolase family GH30	🟩
G0RJ25	GH55	Glycoside hydrolase family 55	🟩
G0R927	GH55	Glycoside hydrolase family 55	🟩
G0R827	-	COOH terminal WSC domain-containing protein	
G0R6T7	CBM1	Carbohydrate-binding module family 1	🟩
Q7Z9M8	GH74;GH74;GH74;CBM1	Xyloglucanase	🟩
G0RV93	CBM1;CE15	4-O-methyl-glucuronoyl methylesterase	🟩
G0RKI1	GH71	Predicted protein	
G0RBB5	GH47	alpha-1,2-Mannosidase	🟩
G0RSA2	GH18	Predicted protein	🟩
G0RIK1	-	Predicted protein	🟩
G0RVQ8	GH30_3	Glycoside hydrolase family 30	🟩
G0RKF5	-	Predicted protein	🟩
G0RRB2	CBM42;GH54	Glycoside hydrolase family 54	🟩
G0RRH0	-	Proteinase T-like protein	🟩
G0R816	-	Trypsin-like serine protease	🟩
G0RUP7	GH11	Endo-1,4-beta-xylanase 2	🟩
G0RG23	GH3	Glycoside hydrolase family 3	🟩
G0RA32	GH10	Endo-1,4-beta-xylanase 3	🟩
G0R894	-	Glyceraldehyde-3-phosphate dehydrogenase	
G0RFZ5	-	Elongation factor 1-alpha	
G0RCS5	-	6-phosphogluconate dehydrogenase, decarboxylating	
G0RGK9	-	Nucleoside diphosphate kinase	
G0RJK8	-	Adenine nucleotide translocator	
G0RRC1	-	60s ribosomal protein rla2, P2	🟩
G0R9F2	-	40s ribosomal protein	
G0RSG5	-	Alcohol dehydrogenase	
G0RQ81	-	ATP synthase subunit beta	
G0RCQ4	-	ATP synthase subunit alpha	
G0RJI7	-	Predicted protein	
G0R7A1	-	Uncharacterized protein	
G0RF42	-	Ribosomal protein S18, S13 family	
G0RDC5	-	Phosphopyruvate hydratase	
G0RRE6	-	Adenosylhomocysteinase	
G0RTE6	-	Ketol-acid reductoisomerase, mitochondrial	
G0RMI2	-	14-3-3 class protein	
G0RKY4	-	Ubiquitin fusion protein	
G0RKP1	-	Peptidyl-prolyl cis-trans isomerase	
G0RK22	-	Uncharacterized protein	
G0RNE6	-	Predicted protein	
G0RMW6	-	Uncharacterized protein	
G0RX78	GH55	Glycoside hydrolase family 55	🟩
G0RJJ1	-	Beta subunit of ATP citrate lyase	
G0RXI7	AA5	Predicted protein	🟩
G0RX34	-	Predicted protein	
G0RJ19	-	40S ribosomal protein S7	
G0RR49	-	Regulatory protein calmodulin	
G0RGH7	-	Predicted protein	
G0RF17	GH3	Glycoside hydrolase family 3	🟩
G0RJV2	-	Uncharacterized protein	
G0RDU2	-	Predicted protein	
G0RQK0	-	Superoxide dismutase [Cu-Zn]	
G0RC29	-	Predicted protein	🟩
G0RAR9	-	Hsp70 family protein, mitochondrial	
G0RRW2	-	Predicted protein	
G0RHU1	-	Dihydrolipoyl dehydrogenase	
G0RR72	-	40S ribosomal protein S1	
G0RGJ9	-	Ribosomal protein S9, S4 family	
G0RTB6	-	Uncharacterized protein	
G0RT69	-	Predicted protein	
G0RD36	-	Adenylate kinase	
G0RXC4	-	Translation elongation factor 1 beta	
G0RJL0	-	Ribosomal protein S5, S7 family	
G0RLL7	-	Predicted protein	
G0RF71	-	Predicted protein	
G0RBD3	-	Cross-pathway control WD-repeat-containing protein	
G0RMU3	-	Hsp70 family protein	
G0RV19	-	Uncharacterized protein	
G0RDA0	-	40S ribosomal protein S6	
G0RCP6	-	GTP-binding nuclear protein	
G0R8H7	-	Translation elongation factor 3-like protein	
G0RQ35	-	Tubulin beta chain	
G0R7R1	-	Uncharacterized protein	
G0RIR9	-	Aconitate hydratase, mitochondrial	
G0RD31	GH1	Glycoside hydrolase family 1	
G0RKA3	-	D-xylose reductase	
G0RAG8	-	40S ribosomal protein S4	
G0RDR6	-	Transketolase	
G0RHD3	-	Formate dehydrogenase	
G0RKZ7	-	Aldehyde dehydrogenase	
G0RQF9	-	Histone H4	
G0RKL5	-	Predicted protein	
G0RTJ0	-	Predicted protein	
G0RNP5	-	Predicted protein	
G0R9Y1	GT35	Alpha-1,4 glucan phosphorylase	
G0RIL9	-	Neutral protease 2	🟩
G0RMH6	-	Protein disulfide-isomerase	🟩
G0RJ44	-	Malate dehydrogenase	
G0RPK6	-	Predicted protein	🟩
G0RIJ1	-	Predicted protein	
G0RDU0	-	Predicted protein	
G0RR40	GT8	Glycosyltransferase family 8	
G0R7F8	-	Acetyl-coenzyme A synthetase	
G0RQX9	-	Predicted protein	
G0RU19	-	Malate dehydrogenase	
G0RQQ3	-	Woronin body major protein	
G0RR33	-	Ribosomal protein L17	
G0RVS5	-	Ribosomal protein L16, L13 family	
G0RF66	-	Predicted protein	
G0RLS6	-	Predicted protein	
G0RJV3	-	Ribosomal protein S14, S11 family	
G0RBD0	-	Uncharacterized protein	
G0RIT4	-	Histone H2B	
G0RA64	-	Predicted protein	
G0RA45	-	Elongation factor 2	
G0R761	-	Uncharacterized protein	
G0RA39	CBM42;GH54	Glycoside hydrolase family 54	🟩
G0REY3	GH62	Glycoside hydrolase family 62	🟩
G0R949	GH28	Glycoside hydrolase family 28	🟩
G0RQN9	GH35	Beta-galactosidase	🟩
G0R911	GH92	Glycoside hydrolase family 92	🟩
G0RGM1	-	Predicted protein	🟩
G0RPD5	-	Predicted protein	🟩
G0RW36	-	Predicted protein	🟩
G0RV47	-	Predicted protein	🟩
G0RRG8	GH12	Glycoside hydrolase family 12	🟩
G0RH05	-	Predicted protein	
G0RDW0	-	Acid phosphatase-like protein	🟩
G0RVV3	-	Amidase	
G0RB67	GH5_5;CBM1	Glycoside hydrolase family 5	🟩
G0RKH9	GH7;CBM1	Glucanase	🟩
G0RJJ0	-	Alpha subunit of ATP citrate lyase	
G0REA0	AA7	Uncharacterized protein	
G0REM9	-	Phospholipase C	🟩
G0RWC5	GH31	Glycoside hydrolase family 31	🟩
G0RVK0	-	Predicted protein	🟩
G0RFR3	CE10	Carboxylic ester hydrolase	🟩
G0RQS4	-	Dehyrdogenase/reductase domain-containing protein	
G0R6Q5	-	Predicted protein	🟩
G0RJJ2	GH72	1,3-beta-glucanosyltransferase	🟩
G0RQJ8	-	Transaldolase	
G0RBA5	-	3-hydroxy-3-methylglutaryl coenzyme A synthase	
G0R8E3	-	Predicted protein	🟩
G0RQW0	GH72;CBM43	1,3-beta-glucanosyltransferase	🟩
G0RRK9	GH17	Glycoside hydrolase family 17	🟩
G0RT90	-	Non-Catalytic module family expansin	🟩
G0RI67	-	Predicted protein	
G0RIJ8	-	Thiamine biosynthesis transporter	
G0RHL2	GH81	Glycoside hydrolase family 81	🟩
G0RHV1	-	Pyruvate decarboxylase	
G0RXH1	GH72;CBM43	1,3-beta-glucanosyltransferase	🟩
G0RB23	-	Predicted protein	🟩
G0RDC0	GH132	Cell wall protein	🟩
G0RPL7	-	Predicted protein	🟩
G0RII9	AA7	Predicted protein	🟩
G0RI29	-	Predicted protein	🟩
G0R8T0	-	Aspartate protease	🟩
G0R6T6	CBM1;CE5	Carbohydrate esterase family 5	🟩
G0RP74	-	Predicted protein	🟩
G0R6T3	AA7	Predicted protein	🟩
G0R947	GH11	Endo-1,4-beta-xylanase 1	🟩

Fig S3 - Myceliophthora thermophila

Uniprot	CAZy	Protein name	Predicted secreted
G2QJ91	CBM1;GH10	Beta-xylanase	🟩
G2QCJ3	AA9;CBM1	Glycoside hydrolase family 61 protein	🟩
G2Q913	CBM1;GH11	Endo-1,4-beta-xylanase	🟩
G2QNN8	GH7	Glucanase	🟩
G2QA39	CBM1;GH6	Glucanase	🟩
G2Q665	CBM1;GH7	Glucanase	🟩
O74240	AA3_1;CBM1	Carbohydrate-binding module family 1 protein	🟩
G2Q5D8	GH5_5;CBM1	Glycoside hydrolase family 5 protein	🟩
G2QLE4	AA9	Glycoside hydrolase family 61 protein	🟩
G2QKQ0	GH12	Glycoside hydrolase family 12 protein	🟩
G2QEK4		Catalase	🟩
G2QNT0	AA9	Glycoside hydrolase family 61 protein	🟩
G2QHR7	GH74;GH74;GH74;GH74	Glycoside hydrolase family 74 protein	🟩
G2Q998	GH6	Glucanase	🟩
G2QI84	CBM1	Carbohydrate-binding module family 1 protein	
G2Q9F7	AA9;CBM1	Glycoside hydrolase family 61 protein	🟩
G2QCS4	CBM1;GH7	Endoglucanase 7a	🟩
G2QNK3	GH131;CBM1	Carbohydrate-binding module family 1 protein	🟩
G2QQ09	GH43_36	Glycoside hydrolase family 43 protein	🟩
G2QFL3		Uncharacterized protein	🟩
G2Q4H7	GH26;CBM35	Glycoside hydrolase family 26 protein	🟩
G2QJ27	CE16	Acetylesterase	🟩
G2QH79	PL1_7	Polysaccharide lyase family 1 protein	🟩
G2Q3G9		Uncharacterized protein	🟩
G2QD29	CE1	Carbohydrate esterase family 1 protein	🟩
G2QJ35		Aldose epimerase-like protein	
G2Q4M0	CBM1;AA9	Glycoside hydrolase family 61 protein	🟩
G2Q9T3	CBM1;AA9	Polysaccharide monooxygenase Cel61a	🟩
G2QI82	AA9	Glycoside hydrolase family 61 protein	🟩
G2QDD4	GH18	Glycoside hydrolase family 18 protein	🟩
G2QA92	AA9	Glycoside hydrolase family 61 protein	🟩
G2QLV4	GH62;CBM1	Glycoside hydrolase family 62 protein	🟩
G2Q4S6	GH11	Endo-1,4-beta-xylanase	🟩
G2QJ94	CE5;CBM1	Carbohydrate esterase family 5 protein	🟩
G2QGJ6	GH125	Uncharacterized protein	🟩
G2QGP4	AA3	GMC oxidoreductase-like protein	🟩
G2QMC6		Cellobiose dehydrogenase-like protein	🟩
G2QJT0	AA9	Glycoside hydrolase family 61 protein	🟩
G2QDD9	GH43_24;CBM35	Glycoside hydrolase family 43 protein	🟩
G2QFG7	PL4_1	Rhamnogalacturonate lyase	🟩
G2PZJ2	AA3_2	GMC oxidoreductase-like protein	🟩
G2Q3A2	GH53	Arabinogalactan endo-beta-1,4-galactanase	🟩
G2QGN6	GH10	Beta-xylanase	🟩
G2QLD1	GH16	Glycoside hydrolase family 16 protein	🟩
G2QDN2	GH3	Glycoside hydrolase family 3 protein	🟩
G2QA11	GH30_5	Glycoside hydrolase family 30 protein	🟩
G2Q7A5	AA9	Glycoside hydrolase family 61 protein	🟩
G2QCK1		Glycoside hydrolase family 17 protein	🟩
G2QMT7	GH3	Glycoside hydrolase family 3 protein	🟩
G2QHL4	GH47	alpha-1,2-Mannosidase	🟩
G2Q494		Uncharacterized protein	🟩
G2QPS0	CBM20;GH15	Glycoside hydrolase family 15 protein	🟩
G2Q335	AA5_1	Glyoxal oxidase like protein	🟩
G2Q925		Serine protease	🟩
G2Q714		Superoxide dismutase [Cu-Zn]	
G2QAD1	GH72;CBM43	1,3-beta-glucanosyltransferase	🟩
G2QKY8		Intradiol ring-cleavage dioxygenase-like protein	🟩
G2QGL4		Protease	🟩
G2QD13		Uncharacterized protein	🟩
G2QP39	GH5_7	Glycoside hydrolase family 5 protein	🟩
G2QCK0		Phospholipase C-like protein	🟩
G2QLJ3		Carbohydrate-binding WSC domain protein	🟩
G2QEU1		Uncharacterized protein	
G2Q419		Uncharacterized protein	🟩
G2QFY4	AA3_1	Cellobiose dehydrogenase	🟩
G2QGA1	GH7	Glucanase	🟩
G2QCJ9	GH25	Lysozyme	🟩
G2QAB5	AA9	Glycoside hydrolase family 61 protein	🟩
G2QIM4	GH55	Glycoside hydrolase family 55 protein	🟩
G2QFK1	GH43_26	Glycoside hydrolase family 43 protein	🟩
G2QG74	PL3_2	Polysaccharide lyase family 3 protein	🟩
G2QFY9		Pectin lyase-like protein	🟩
G2QJT2	GH79	Glycoside hydrolase family 79 protein	🟩
G2QFS5	CE10	Carboxylic ester hydrolase	🟩
G2QHQ9	GH43_21	Glycoside hydrolase family 43 protein	🟩
G2QDI5	GH95	Glycoside hydrolase family 95 protein	🟩
G2Q5Q6	GH93	Glycoside hydrolase family 93 protein	🟩
G2QCC8	GH43_36	Glycoside hydrolase family 43 protein	🟩
G2QLD0	CE8	Pectinesterase	🟩
G2Q1K5	PL1_7	Polysaccharide lyase family 1 protein	🟩
G2QJQ6	GH62	Glycoside hydrolase family 62 protein	🟩
G2Q8Y8	CE1	Ferulic acid esterase	🟩
G2QJ92		Peptide hydrolase	🟩
G2Q7D0		Myo-inositol-1-phosphate synthase	
G2Q9T6		Fumarate reductase/succinate dehydrogenase flavo protein-like protein	🟩
G2Q2Z1		Uncharacterized protein	
G2QQA3		Uncharacterized protein	
G2QJU3		Alcohol dehydrogenase-like protein	
G2Q8R8		Pectin lyase-like protein	🟩
G2Q8I8		Uncharacterized protein	🟩
G2QAY2		Uncharacterized protein	
G2Q8N2		Uncharacterized protein	
G2QCN5		Uncharacterized protein	
G2Q550	PL26	Uncharacterized protein	🟩
G2QPK7		Uncharacterized protein	
G2QBU0	CE10	Carboxylic ester hydrolase	🟩
G2Q2N0	CE3	Uncharacterized protein	🟩
G2Q424		Acetyl-CoA C-acetyltransferase	
G2QN15	GH109	NADP:D-xylose dehydrogenase	
G2PZU8		60S acidic ribosomal protein P0	
G2PZQ3		Uncharacterized protein	
G2Q9D2		Uncharacterized protein	
G2QBV2		Uncharacterized protein	
G2QI39		Aconitate hydratase, mitochondrial	
G2QP23		Uncharacterized protein	
G2Q3L4		Uncharacterized protein	
G2Q624		Uncharacterized protein	
G2Q974		40S ribosomal protein S1	
G2QMH3	CE12	Carbohydrate esterase family 12 protein	🟩
G2QNR1		Uncharacterized protein	🟩
G2QJR6	CE15	4-O-methyl-glucuronoyl methylesterase	🟩
G2QGS8	GH2	Glycoside hydrolase family 2 protein	🟩
G2QGI6		Uncharacterized protein	
G2QAP6		Uncharacterized protein	
G2QHT5		Tubulin beta chain	
G2Q1N4	GH30_7	Glycoside hydrolase family 30 protein	🟩
G2QBT1	AA2;AA2	Catalase-peroxidase	
G2Q057		Uncharacterized protein	🟩
G2QBH1		Ran-specific GTPase-activating protein 1-like protein	
G2QGF9		40S ribosomal protein S7	
G2Q610		Uncharacterized protein	
G2QQ76		Acetyl-coenzyme A synthetase	
G2QHV9		Uncharacterized protein	
G2QJQ4	GH115	Glycoside hydrolase family 115 protein	🟩
G2QJE6	GH67	Alpha-glucuronidase	🟩
G2QAX0		Nitroreductase-like protein	
G2QNS9	AA8	Cellobiose dehydrogenase	🟩
G2Q2F7	AA9	Glycoside hydrolase family 61 protein	🟩
G2QNI1	GH11	Endo-1,4-beta-xylanase	🟩
G2QFC6		60S ribosomal protein L13	
G2QQH4		Histone H4	
G2Q334		GTP-binding nuclear protein	
G2QCN9		Uncharacterized protein	
G2QNQ5		Acyltransferase	
G2QHV8		Uncharacterized protein	
G2QIV4		Sugar transporter-like protein	
G2Q3J4		Uncharacterized protein	
G2PZV9		Uncharacterized protein	
G2Q574		Rab GDP dissociation inhibitor	
G2Q2Q4		Uncharacterized protein	
G2QB71		Formate dehydrogenase	
G2Q7V1		Transketolase	
G2QNH0		Uncharacterized protein	
G2Q6B1		Sugar transporter	
G2QH37		Polyketide synthase	
G2QIR4	GH11	Endo-1,4-beta-xylanase	
G2QQD7		ATP synthase subunit beta	
G2QGB0	CE3	Carbohydrate esterase family 3 protein	🟩
G2QNZ9		Uncharacterized protein	
G2Q3G0		Uncharacterized protein	
G2QGW5		Uncharacterized protein	🟩
G2Q0S9		Aldo/keto reductase-like protein	
G2QGD9	CE4	Carbohydrate esterase family 4 protein	🟩
G2QDB9	GH11	Endo-1,4-beta-xylanase	🟩
G2QD81		Malate dehydrogenase	
G2QFV7		Uncharacterized protein	
G2QAN5		Uncharacterized protein	
G2PZW5		Uncharacterized protein	
G2QHP5	GH16	Glycoside hydrolase family 16 protein	🟩
G2QHM8		Uncharacterized protein	
G2QBS2		Ribosomal protein	
G2QBY3		60S ribosomal protein L2-like protein	
G2QBW8		Uncharacterized protein	
G2QKM4	AA3_2	Uncharacterized protein	
G2QM97	GH43_1	Glycoside hydrolase family 43 protein	
G2QPC7		40S ribosomal protein S0	
G2QJD0		Uncharacterized protein	
G2PZJ6		FAD dependent oxidoreductase-like protein	🟩
G2QN01		Citrate synthase	
G2QQ50		40S ribosomal protein S8	
G2Q586		Eukaryotic translation initiation factor 5A	
G2Q1R6		Uncharacterized protein	
G2QD93	GH1	Glycoside hydrolase family 1 protein	
G2QH36		Transferase-like protein	
G2QDZ0	GH43_11	Glycoside hydrolase family 43 protein	
G2Q7Z2		Uncharacterized protein	
G2Q3M9		Uncharacterized protein	
G2QHK8		3-hydroxy-3-methylglutaryl coenzyme A synthase	
G2QLD3		Tyrosinase-like protein	🟩
G2Q025		40S ribosomal protein S4	
G2QAA5		Uncharacterized protein	
G2QMS4		Secretory phospholipase A2	🟩
G2Q483		Uncharacterized protein	
G2Q9C3		Nucleosome assembly protein-like protein	
G2Q2T6		60S ribosomal protein L6	
G2QLD8		Phosphoglycerate kinase	
G2QG07	GH10	Beta-xylanase	🟩
G2QMB4	CE1	Carbohydrate esterase family 1 protein	🟩
G2Q3B6	CE3	Carbohydrate esterase family 3 protein	🟩
G2QJ26	GH93	Glycoside hydrolase family 93 protein	🟩
G2QJM5		Uncharacterized protein	🟩
G2QAJ6	GH43_14	Glycoside hydrolase family 43 protein	🟩
G2Q8Y7	CE1	Carbohydrate esterase family 1 protein	🟩
G2QQH3		Histone H3	
G2Q200		Glucose-6-phosphate isomerase	
G2QQ52		40S ribosomal protein S6	
G2Q3L3	GH51	Glycoside hydrolase family 51 protein	🟩
G2QNU8		Alpha-galactosidase	🟩
G2QN86		Uncharacterized protein	
G2Q6N7		Uncharacterized protein	
G2QJ41	GT4	Glycosyltransferase family 4 protein	
G2QJY4		Uncharacterized protein	
G2QNH2		Uncharacterized protein	
G2QB59		Uncharacterized protein	
G2QQ81		Uncharacterized protein	
G2QPX4		60S ribosomal protein L27	
G2Q8Y3		Intradiol ring-cleavage dioxygenase-like protein	🟩
G2QDZ2	AA3_2	GMC oxidoreductase-like protein	🟩
G2PZM0		Uncharacterized protein	
G2QJW2	AA12	Uncharacterized protein	🟩
G2QB77		Uncharacterized protein	
G2QQB7		Uncharacterized protein	
G2QPP4		Uncharacterized protein	🟩
G2Q254		Peptidyl-prolyl cis-trans isomerase	
G2Q2S4		Uncharacterized protein	
G2QHY6		Histone H2A	
G2QCW2		Uncharacterized protein	
G2Q1Y5		Uncharacterized protein	
G2QN52		Uncharacterized protein	
G2Q3E1		Uncharacterized protein	
G2Q2K1		Uncharacterized protein	
G2Q372		Uncharacterized protein	🟩
G2QH35		General substrate transporter	
G2QFK0	GH43_6	Arabinan endo-1,5-alpha-L-arabinosidase	🟩
G2QME4		Uncharacterized protein	
G2Q7K6		Uncharacterized protein	
G2Q650		Uncharacterized protein	🟩
G2Q0U8		Tubulin alpha chain	
G2Q102		Uncharacterized protein	
G2QH39		Epimerase/hydratase	
G2Q7E8		Uncharacterized protein	
G2QKL8		Uncharacterized protein	
G2QHD4		Glucose-regulated protein	🟩
G2Q6G9		Uncharacterized protein	
G2QAZ1		Uncharacterized protein	
G2QPB2		Uncharacterized protein	
G2Q129		Elongation factor 1-alpha	
G2QDE9		Malate dehydrogenase	
G2PZX2		Protein disulfide-isomerase	🟩
G2Q5U7		ATP synthase subunit alpha	
G2Q8U9		Nucleoside diphosphate kinase	
G2QPQ8		Glyceraldehyde-3-phosphate dehydrogenase	
G2QBJ2		Uncharacterized protein	
G2Q7Q5		Actin-like protein	
G2Q8B8		Uncharacterized protein	
G2Q716		Transaldolase	
G2Q8M4		Uncharacterized protein	🟩
G2QHY7		Histone H2B	
G2Q104		6-phosphogluconate dehydrogenase, decarboxylating	
G2QAN6		Peptidylprolyl isomerase	
G2QN04		Plasma membrane ATPase	
G2Q4F9		Uncharacterized protein	🟩
G2QDQ9	AA7	Uncharacterized protein	🟩
G2Q288		Uncharacterized protein	
G2QCL0	CBM52	Carbohydrate-binding module family 52 protein	🟩
G2QN94		Uncharacterized protein	
G2Q456		Uncharacterized protein	
G2QEZ7		Uncharacterized protein	
G2Q0S5		Protein transport protein Sec61 subunit beta	
G2Q201		Uncharacterized protein	
G2QC28		Uncharacterized protein	🟩
G2Q591		Uncharacterized protein	
G2QBM5		Uncharacterized protein	
G2QPW8		Uncharacterized protein	
G2QK78		Aspartic protease	🟩
G2Q1T1		Uncharacterized protein	
G2Q2J6		Uncharacterized protein	
G2QN02		Uncharacterized protein	
G2QKQ4		Uncharacterized protein	
G2QN42		Rhodopsin-like protein	
G2QCX2		Uncharacterized protein	
G2QCB6		Uncharacterized protein	🟩
G2QKE8		Uncharacterized protein	
G2QDR0		Uncharacterized protein	
G2Q1W7		Uncharacterized protein	
G2QBS7		Uncharacterized protein	🟩
G2Q0H3		Uncharacterized protein	🟩
G2QN93		Uncharacterized protein	
G2Q3A8		Uncharacterized protein	
G2Q8V1		Uncharacterized protein	🟩
G2Q493		Uncharacterized protein	🟩
G2QMP1		Uncharacterized protein	🟩
G2QLF1	AA7	Uncharacterized protein	
G2QAC0	GH135	Uncharacterized protein	🟩
G2QMW2		Uncharacterized protein	🟩
G2QGG5		Uncharacterized protein	🟩
G2QBZ2		Uncharacterized protein	🟩
G2QFT7	GH5_5	Glycoside hydrolase family 5 protein	🟩
G2QD40	GH31	Glycoside hydrolase family 31 protein	
G2QPH7		Uncharacterized protein	🟩
G2Q9P8		Peptidase-like protein	🟩
G2QMP5	GH71;CBM24	Glycoside hydrolase family 71 protein	🟩
G2QA29		Uncharacterized protein	🟩
G2Q7B9	GH72	1,3-beta-glucanosyltransferase	🟩
G2Q654	AA7	Uncharacterized protein	🟩
G2QG48	AA7	FAD linked oxidase-like protein	🟩
G2Q5V8	GH131	Uncharacterized protein	🟩
G2QCT8	GH55	Glycoside hydrolase family 55 protein	🟩
G2QCB9	CE10	Carboxylic ester hydrolase	🟩
G2Q0Y0	GH45	Glycoside hydrolase family 45 protein	🟩
G2QF48	GH55	Glycoside hydrolase family 55 protein	🟩
G2QHM1	GH81;GH81	Glycoside hydrolase family 81 protein	🟩
G2Q4L9	GH2	Glycoside hydrolase family 2 protein	🟩
G2Q2L6	GH20	Beta-hexosaminidase	🟩
G2QG50	PL1_4	Polysaccharide lyase family 1 protein	🟩
G2QLY9	CE3	Carbohydrate esterase family 3 protein	🟩
G2QFG6		Peptide hydrolase	🟩
G2QNT3		Peptide hydrolase	🟩
G2QAE3	GH31	Glycoside hydrolase family 31 protein	🟩

Fig S4 - Neurospora crassa

Uniprot	CAZy	Protein name	Predicted secreted
Q1K5V3	GH6	Glucanase	
Q7S222	GH16	Cell wall glucanosyltransferase Mwg1	🟩
Q1K5A2		Non-anchored cell wall protein 1	🟩
Q7RYB4		Uncharacterized protein	🟩
Q1K679		Clock controlled protein CCG-14	🟩
Q7S5Q5		Uncharacterized protein	🟩
Q7SCF6		Endothiapepsin	🟩
V5IN52		ATP citrate lyase	
Q7S187	GH54	Alpha-N-arabinofuranosidase	🟩
P54118		Glyceraldehyde-3-phosphate dehydrogenase	
Q1K6S6		Clock-controlled gene-15	🟩
P14804	CBM20;GH15	Glucoamylase	🟩
Q7SA19	AA9	Endoglucanase IV	🟩
Q7RYC5		Uncharacterized protein	🟩
Q7S3R5	GH3	Beta-D-glucoside glucohydrolase	🟩
Q7RWN7	CBM1;AA9	Endoglucanase II	🟩
Q1K8B6	AA9	Endoglucanase II	🟩
Q7S439	AA9;CBM1	Endoglucanase II	🟩
Q7SDR1	GH5_5;CBM1	Endoglucanase gh5-1	🟩
Q7SA23	CBM1;GH7	Exoglucanase 1	🟩
Q7S3P8	GH10	Beta-xylanase	🟩
Q7S0Y0	GH10	Beta-xylanase	🟩
Q7S412	GH51	Alpha-L-arabinofuranosidase 2	🟩
Q1K6Q5	CBM1;GH6	Glucanase	🟩
Q1K5S8	GH11;CBM1	Endo-1,4-beta-xylanase	🟩
Q7SE40		Transaldolase	
Q7S2L6		ACW-7	🟩
F5HBN4		Thioredoxin II	
Q1K6P1		Uncharacterized protein	🟩
Q7SHI8	AA9;CBM1	Endoglucanase II	🟩
Q7SHY0		Serine protease p2	🟩
Q1K5P6		Methionine synthase	
V5IL01		Uncharacterized protein	
Q7S9W0		Uncharacterized protein	
Q7S556	PL20	Glucuronan lyase A	🟩
Q7SGE3		60S acidic ribosomal protein P2	🟩
P61859		Calmodulin	
P53444		Fructose-bisphosphate aldolase	
Q7SD67		Xylose reductase	
Q7S1D6		Malate dehydrogenase	
Q7SCJ9		Phosphoglucomutase 2	
Q7RV85		Enolase	
P87102		Nuclear transport factor 2	
P22151		Glucose-repressible gene protein	
P07509		Superoxide dismutase [Cu-Zn]	

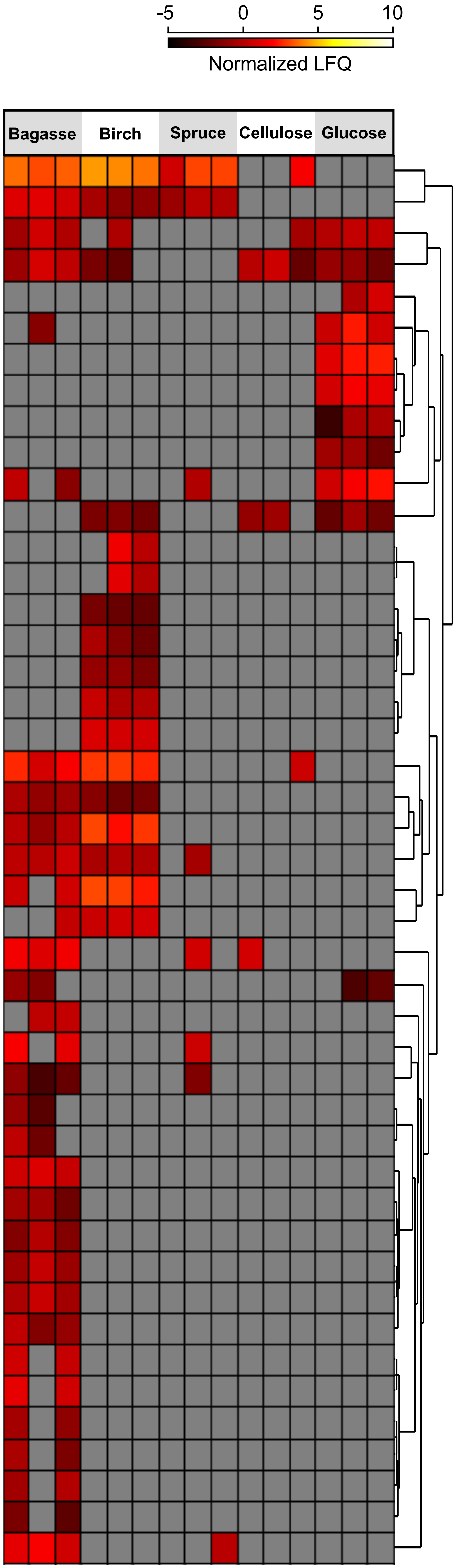


Fig S5 - Phanerochaete chrysosporium

IMG	CAZy	Protein name	Predicted secreted
2762160227	CBM1;GH6	Glycoside Hydrolase Family 6 protein	🟩
2762170494	CBM1;GH7	exo-cellobiohydrolase I precursor	🟩
2762162754	GH7;CBM1	cellulase	🟩
2762169415	AA8	Cellobiose dehydrogenase	🟩
2762164502	GH28	endo-polygalacturonase PG1	🟩
2762165449	GH16	endo-beta-glucanase	🟩
2762170873	GH55	glucan 1,3-beta-glucosidase	🟩
2762161535		DUF1793-domain-containing protein	
2762172658		aspartic protease	🟩
2762167002	CBM20;GH15	Glycoside Hydrolase Family 15	🟩
2762164701	GH51	glycoside hydrolase	🟩
2762167867	GH30	glycoside hydrolase	🟩
2762170282	CE1	acetyl xylan esterase	🟩
2762169492	GH12	concanavalin A-like lectin/glucanase	🟩
2762165976	AA9	glycoside hydrolase family 61 protein D	🟩
2762165543	CBM1;GH11	endo-1,4-B-xylanase B	🟩
2762167232	GH131	carbohydrate-binding module family 1 protein	🟩
2762166409	GH5_5;CBM1	Glycoside Hydrolase Family 5 protein	🟩
2762165922	AA9;CBM1	hypothetical protein	🟩
2762171758	CBM1;GH5_7	Glycoside Hydrolase Family 5 protein	🟩
2762164616	CBM1	Carbohydrate-Binding Module Family 1 protein	
2762165332	CBM1	Carbohydrate-Binding Module Family 1 protein	🟩
2762170727	AA2	Class II peroxidase	🟩
2762165280	AA5_1	Copper radical oxidase	🟩
2762172045	GH30_3	Glycoside hydrolase	
2762171888	AA2	Class II peroxidase	🟩
2762168410	GH10	endo-1,4-beta xylanase	🟩
2762172069		alpha/beta-Hydrolase	🟩
2762167740		SGNH hydrolase	🟩
2762167022	GH5_7;CBM1	Glycoside Hydrolase Family 5 protein	🟩
2762172789	GH35	Glycoside Hydrolase Family 35 protein	🟩
2762169520		putative isomerase YbhE	
2762165978	AA9	hypothetical protein	🟩
2762170040	CE10	alpha/beta-hydrolase	🟩
2762170458		calcium-dependent phosphotriesterase	🟩
2762166069	AA2	Class II peroxidase	🟩
2762163297		hypothetical protein	🟩
2762169052	CE15	Carbohydrate Esterase Family 15 protein	🟩
2762168159	GH31	glycoside hydrolase family 31 protein	🟩
2762169240	CBM1;GH3	beta-glucosidase	🟩
2762162448		lipase	🟩
2762169093	GH5_5;CBM1	Glycoside Hydrolase Family 5 protein	🟩
2762164052	GH74;GH74;GH74	Glycoside Hydrolase Family 74 protein	🟩
2762164277	CBM1;AA9	cellulose-growth-specific protein	🟩
2762168484	AA9;CBM1	hypothetical protein	🟩
2762163167	GH92	glycoside hydrolase family 92 protein	🟩
2762170417	CBM1;GH28	Glycoside Hydrolase Family 28	🟩
2762169417	GH18;CBM5	Glycoside Hydrolase Family 18	🟩
2762164312	AA9;CBM1	family 61 endoglucanase	🟩
2762160922	GH3	Glycoside hydrolase	🟩
2762168721	GH74;CBM1;GH74;GH74	family 74 glycoside hydrolase	🟩
2762170648	GH16	Glycoside Hydrolase Family 16 protein	🟩
2762166201	CE10	carboxylesterase from carbohydrate esterase	🟩
2762163891	CBM1;GH10	Glycoside Hydrolase Family 10 protein	🟩
2762171709	CBM1;CE15	Carbohydrate Esterase Family 15 protein	🟩
2762169496	GH10;CBM1	Glycoside Hydrolase Family 10 protein	🟩
2762161515	AA9	hypothetical protein	🟩
2762168649	AA2	Class II peroxidase	🟩
2762171893	AA2	Class II peroxidase	🟩
2762161085		Actin 1	
2762165701		expressed protein	
2762171564		Acid protease	
2762167606	AA2	Class II peroxidase	🟩
2762171299		NAD-dependent formate dehydrogenase	
2762162497		Subtilisin-like protein	🟩
2762163234		aspartic proteinase precursor	🟩
2762168026	AA9	expressed protein	
2762170819		family S53 protease	🟩
2762171406	CE8	Carbohydrate Esterase Family 8 protein	🟩
2762163114		hypothetical protein	
2762161557		tripeptidyl peptidase A	🟩
2762164196		hypothetical protein	
2762160128	CE16	Carbohydrate Esterase Family 16 protein	🟩
2762160094	CE10	alpha/beta-hydrolase	🟩
2762170383		aldehyde dehydrogenase	
2762169982	AA12	Soluble quinoprotein glucose dehydrogenase	🟩
2762171566		acid protease	🟩
2762169585	AA5_1	Copper radical oxidase	🟩
2762170313		acid protease	🟩
2762166594	AA3_3	alcohol oxidase	
2762169729		PEBP-like protein	🟩
2762165605		subtilisin-like protease	🟩
2762160012	GH13_1	alpha-amylase	🟩
2762163632	CE16;CBM1	Carbohydrate Esterase Family 16 protein	🟩
2762164563	CE10	alpha/beta-hydrolase	🟩
2762166659	GH10;CBM1	Glycoside Hydrolase Family 10 protein	🟩
2762167584	GH115	Glycoside Hydrolase Family 115 protein	🟩
2762167640		hypothetical protein	
2762169560	GH95	glycoside hydrolase family 95 protein	🟩
2762171452	GH20	Glycoside Hydrolase Family 20 protein	🟩
2762172541	GH3	glycoside hydrolase family 3 protein	🟩
2762168929	GH5_7	glycoside hydrolase	🟩
2762164514	GH28	Glycoside Hydrolase Family 28 protein	🟩
2762162050	GH105	Six-hairpin glycosidase	🟩
2762161688	GH125	Glycoside Hydrolase Family 125 protein	🟩
2762170403	GH10	Glycoside hydrolase	🟩
2762171471	GH37	glycoside hydrolase	🟩
2762160510	GH43_24;CBM35	galactan 1,3-beta-galactosidase	🟩
2762166192	GH47	Glycoside Hydrolase Family 47 protein	🟩
2762161201	GH7;CBM1	exo-cellobiohydrolase I precursor	🟩
2762169227	GH27	alpha-galactosidase	🟩
2762169467		hypothetical protein	🟩
2762172250	GH2	glycoside hydrolase family 2 protein	🟩
2762168482	CBM1;AA9	hypothetical protein	🟩
2762167027	CE1;CBM1	alpha/beta-Hydrolase	🟩
2762163827		galactose mutarotase-like protein	🟩
2762163413	GH18	glycoside hydrolase	🟩
2762162947		hypothetical protein	🟩
2762163993	GH18	Glycoside hydrolase	
2762165790	GH43_5	arabinanase	🟩
2762162558	GH18	glycoside hydrolase	🟩
2762168102	CE8	Carbohydrate Esterase Family 8 protein	🟩
2762171226	GH79	Glycoside Hydrolase Family 79 protein	🟩
2762167622	CE2	hypothetical protein	🟩
2762168069	GH78	Glycoside Hydrolase Family 78 protein	🟩
2762166294	CE10	carboxylesterase	🟩
2762166321	GH28	Glycoside Hydrolase Family 28 protein	🟩
2762165023	GH79	Glycoside Hydrolase Family 79 protein	🟩
2762159800	GH88	glycoside hydrolase family 88 protein	🟩
2762169896		peptidyl-Lys metalloendopeptidase	🟩
2762165979	AA9	hypothetical protein	🟩
2762169148	CBM5;GH18;CBM5	class III chitinase	🟩
2762159622	GH31	alpha-glucosidase	🟩
2762170193		family A1 protease	🟩
2762172136		nuclease Le1	🟩
2762164220		acid proteinase	🟩
2762169472		ustilago Sphaerogena ribonuclease U2 complexed with adenosine 2'-Monophosphate	🟩
2762164192		hypothetical protein	🟩
2762170251		Enolase	
2762171668		expressed protein	
2762171666		expressed protein	
2762171670		expressed protein	
2762159589		family S53 protease	🟩

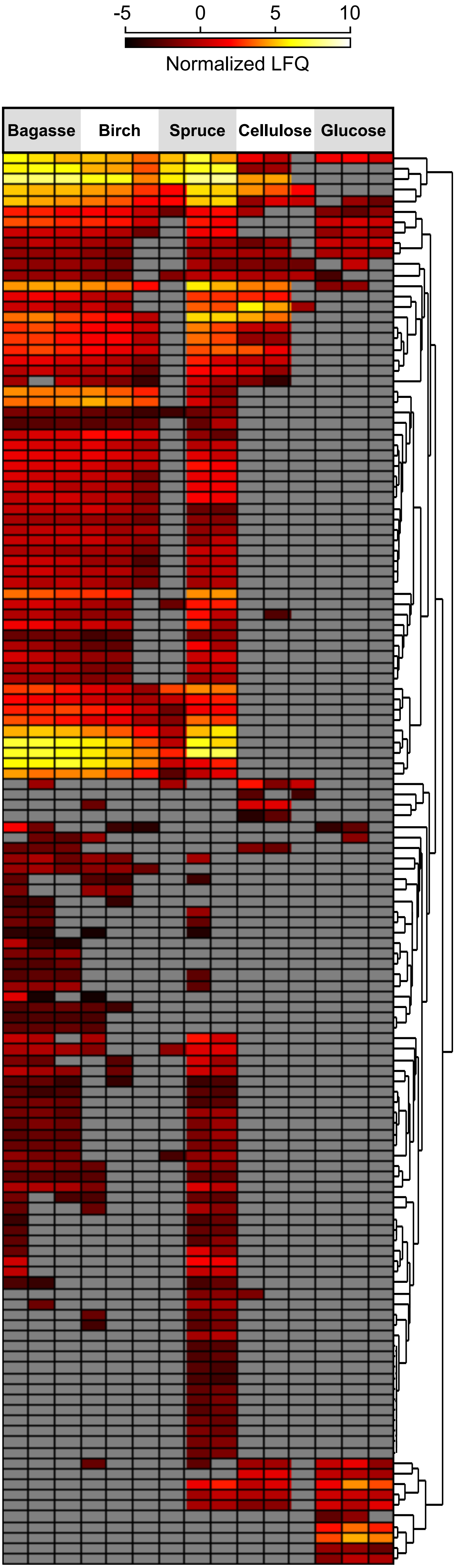
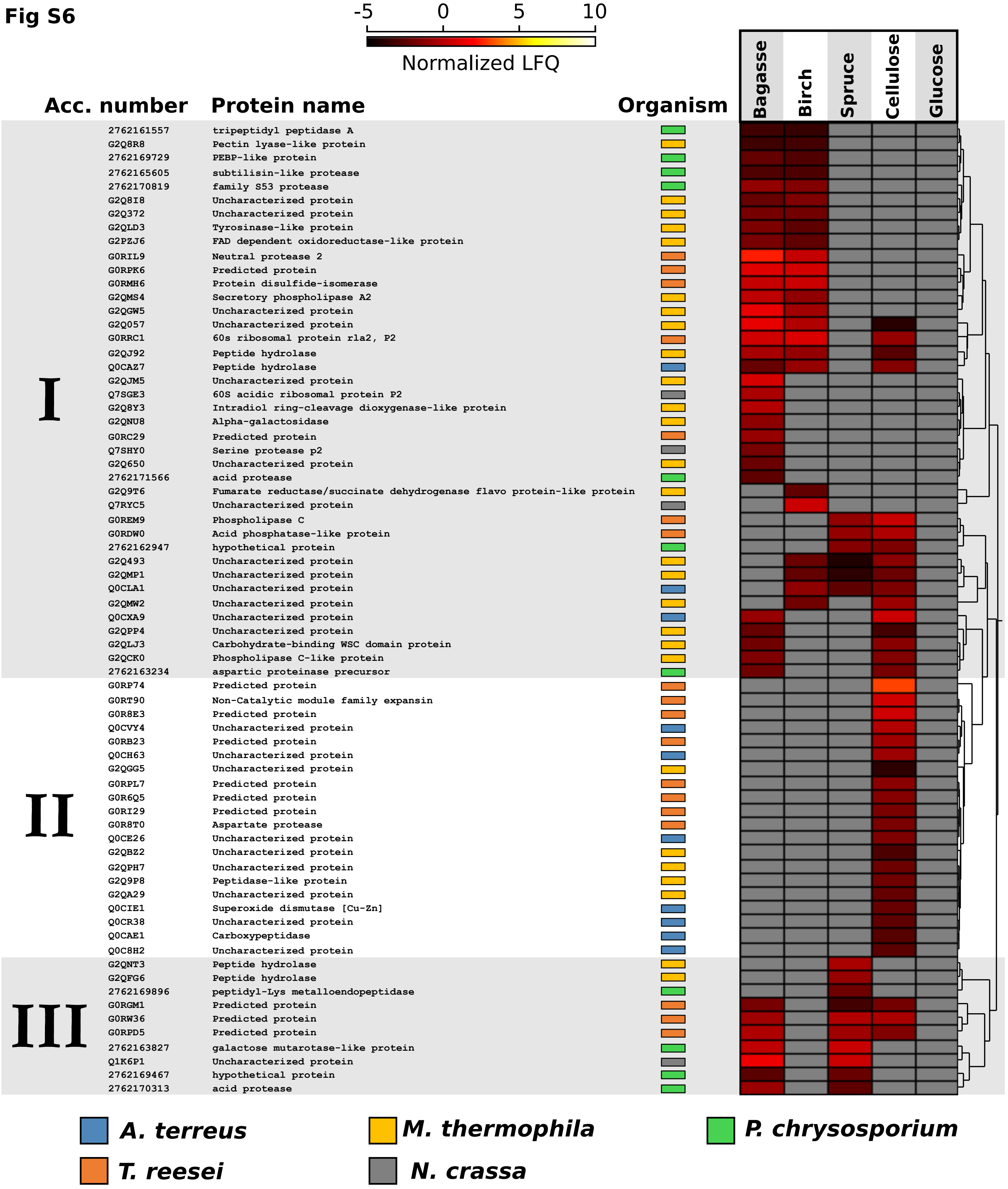


Fig S6


-5
0
5
10
Normalized LFQ
Acc. number
Protein name
Organism
Bagasse
Birch
Spruce
Cellulose
Glucose
2762161557 tripeptidyl peptidase A
G2Q8R8 Pectin lyase-like protein
2762169729 PEBP-like protein
2762165605 subtilisin-like protease
2762170819 family S53 protease
G2Q8I8 Uncharacterized protein
G2Q372 Uncharacterized protein
G2QLD3 Tyrosinase-like protein
G2PZJ6 FAD dependent oxidoreductase-like protein
G0RIL9 Neutral protease 2
G0RPK6 Predicted protein
G0RMH6 Protein disulfide-isomerase
G2QMS4 Secretory phospholipase A2
G2QGW5 Uncharacterized protein
G2Q057 Uncharacterized protein
G0RRC1 60s ribosomal protein rla2, P2
G2QJ92 Peptide hydrolase
Q0CAZ7 Peptide hydrolase
G2QJM5 Uncharacterized protein
Q7SGE3 60S acidic ribosomal protein P2
G2Q8Y3 Intradiol ring-cleavage dioxygenase-like protein
G2QNU8 Alpha-galactosidase
G0RC29 Predicted protein
Q7SHY0 Serine protease p2
G2Q650 Uncharacterized protein
2762171566 acid protease
G2Q9T6 Fumarate reductase/succinate dehydrogenase flavo protein-like protein
Q7RYC5 Uncharacterized protein
G0REM9 Phospholipase C
G0RDW0 Acid phosphatase-like protein
2762162947 hypothetical protein
G2Q493 Uncharacterized protein
G2QMP1 Uncharacterized protein
Q0CLA1 Uncharacterized protein
G2QMW2 Uncharacterized protein
Q0CXA9 Uncharacterized protein
G2QPP4 Uncharacterized protein
G2QLJ3 Carbohydrate-binding WSC domain protein
G2QCK0 Phospholipase C-like protein
2762163234 aspartic proteinase precursor
G0RP74 Predicted protein
G0RT90 Non-Catalytic module family expansin
G0R8E3 Predicted protein
Q0CVY4 Uncharacterized protein
G0RB23 Predicted protein
Q0CH63 Uncharacterized protein
G2QGG5 Uncharacterized protein
G0RPL7 Predicted protein
G0R6Q5 Predicted protein
G0RI29 Predicted protein
G0R8T0 Aspartate protease
Q0CE26 Uncharacterized protein
G2QBZ2 Uncharacterized protein
G2QPH7 Uncharacterized protein
G2Q9P8 Peptidase-like protein
G2QA29 Uncharacterized protein
Q0CIE1 Superoxide dismutase [Cu-Zn]
Q0CR38 Uncharacterized protein
Q0CAE1 Carboxypeptidase
Q0C8H2 Uncharacterized protein
G2QNT3 Peptide hydrolase
G2QFG6 Peptide hydrolase
2762169896 peptidyl-Lys metalloendopeptidase
G0RGM1 Predicted protein
G0RW36 Predicted protein
G0RPD5 Predicted protein
2762163827 galactose mutarotase-like protein
Q1K6P1 Uncharacterized protein
2762169467 hypothetical protein
2762170313 acid protease
I
II
III
A. terreus
M. thermophila
P. chrysosporium
T. reesei
N. crassa