**Table 2a. Putative plant-polysaccharide degrading activities in genome-sequenced marine fungi**

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| --- | --- | --- | --- | --- | --- |
| **Substrate** | **Enzyme** | **EC no., Abbreviation** | **CAZyme families\***  | ***Scopulariopsis brevicaulis*** LF580 (Kumar et al., 2015) | ***Pestalotiopsis* sp.NCi6** (Arfi et al., 2013) |
| Cellulose | β-1,4-Endoglucanase exo β-glucanase (cellobiohydrolase, reducing end)exo β-glucanase Cellobiohydrolase (nonreducing end)β-1,4-GlucosidaseCellobiose dehydrogenaseLytic polysaccharide monooxygenase | EG, 3.2.1.4CBHI, 3.2.1.176CBHII, 3.2.1.91BGL, 3.2.1.21CDH, 1.1.99.18LPMO | GH3, -5, -6, -7, -9, -12, -45GH7 GH6 GH1, -3AA3\_1, AA7, AA8AA9 (formerly GH61)  | GH3, -5, -6, -7, -12, -45GH7GH6 GH1, -3AA3\_1; AA7; AA8AA9 | GH3, -5, -6, -7GH7GH6 GH3AA3\_1; AA8 (only in saline medium)- |
| XylanGalactomannanXyloglucanArabinoxylan | β-1,4-Endoxylanase.β-1,4-Xylosidaseβ-1,4-Endomannanaseβ-1,4-Mannosidaseβ-1,4-Galactosidaseα-1,4-Galactosidaseα-ArabinofuranosidaseXyloglucan β-1,4-endoglucanaseα-Xylosidaseα-Fucosidaseα-1,4-Galactosidaseβ-1,4-GalactosidaseArabinoxylan arabinofuranohydrolase/arabinofuranosidaseα-Glucuronidaseα-1,4-Galactosidaseβ-1,4-GalactosidaseAcetyl xylan esteraseFeruloyl esterase | XLN, 3.2.1.8BXL, 3.2.1.37MAN, 3.2.1.78MND, 3.2.1.25LAC, 3.2.1.23AGL, 3.2.1.22ABF, 3.2.1.55XEG, 3.2.1.151AXL, 3.2.1.177 AFC, 3.2.1.51 AGL, 3.2.1.22 LAC, 3.2.1.23AXH, 3.2.1.55AGU, 3.2.1.139AGL, 3.2.1.22LAC, 3.2.1.23AXE, 3.1.1.72FAE, 3.1.1.73 | GH10, -11GH3, -43GH5, -26GH2GH2, -35GH27, -36GH51, -54GH12, -74GH31GH29, -95GH27, -36GH2, -35GH62GH67, -115GH27, -36GH2, -35CE1, -5CE1 | GH10, -11GH3, -43GH5, -26GH2GH2, -35GH27, -36GH51, -54GH12, -74GH31GH95GH27, -36GH2, -35GH62GH67, -115GH27, -36GH2, -35CE1, -5CE1 | GH10, -11GH3, -43GH5GH2GH2, -35 GH27, -36GH51GH74GH31GH29GH27, -36GH2, -35 GH62GH115 (only in saline medium)GH27, -36GH2, -35CE1CE1 |
| PectinStarch | EndopolygalacturonasesExopolygalacturonasesEndorhamnogalacturonaseExorhamnogalacturonaseRhamnogalacturonan rhamnohydrolaseα-Rhamnosidaseα-ArabinofuranosidaseEndoarabinanaseExoarabinanaseβ-1,4-EndogalactanaseUnsaturated glucuronyl hydrolaseUnsaturated rhamnogalacturonan hydrolaseβ-1,4-Xylosidaseβ-1,4-GalactosidasePectin lyasePectate lyaseRhamnogalacturonan lyasePectin methyl esteraseRhamnogalacturonan acetyl esteraseFeruloyl esteraseα-AmylaseGlucoamylaseα-1,4-Glucosidase | PGA, 3.2.1.15PGX, 3.2.1.67RHG, 3.2.1.171RHX, 3.2.1.-RGXB, 3.2.1.174RHA, 3.2.1.40ABF, 3.2.1.55ABN, 3.2.1.99ABX, 3.2.1.–GAL, 3.2.1.89UGH, 3.2.1.–URH, 3.2.1.172BXL, 3.2.1.37LAC, 3.2.1.23PEL, 4.2.2.10PLY, 4.2.2.2RGL, 4.2.2.23PME, 3.1.1.11RGAE, 3.1.1.–FAE, 3.1.1.73AMY, 3.2.1.1GLA, 3.2.1.3AGD, 3.2.1.20 | GH28GH28GH28GH28GH28GH78GH51, -54, -62GH43GH93GH53GH88GH105GH3, -43GH2, -35PL1PL1, -3, -9PL4, -11CE8CE12CE1GH13GH15GH31 | GH28GH28GH28GH28GH28GH78GH51, -54, -62GH43GH93GH53GH88GH105GH3, -43GH2, -35PL1PL1, -3, -9PL4, -11CE8CE12CE1GH13GH15-CMB20GH31 | GH28(only in saline medium)GH28GH28GH28GH28GH78GH51GH43GH93GH53-GH105GH3, -43GH2, -35PL1PL1, -3PL4CE8CE12CE1GH13GH15GH31 |

\* CAZy families and relative activities were taken from van den Brink et al., 2011;Rytioja et al., 2014; Zhao et al., 2014; Berlemont etal., 2017