|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |
| --- |
| **Table S7.** Glycoside hydrolase comparisons of brown-rot (BR) and white-rot (WR) fungi |
|  |  | **Glycoside hydrolase (GH) family** |
| **Decay** | **Species** | **1** | **2** | **3** | **5** | **6** | **7** | **9** | **10** | **11** | **12** | **13** | **15** | **16** | **17** | **18** | **20** | **23** | **25** | **26** | **27** | **28** | **29** | **30** | **31** | **32** |
| **BR** | ***Postia placenta Mad-698-R***  | **2** | **3** | **6** | **17** | **0** | **0** | **0** | **3** | **0** | **2** | **7** | **2** | **24** | **2** | **11** | **3** | **1** | **0** | **0** | **3** | **8** | **0** | **3** | **4** | **0** |
| **BR** | ***Fomitopsis pinicola***  | **2** | **4** | **12** | **19** | **0** | **0** | **0** | **2** | **0** | **2** | **7** | **4** | **28** | **3** | **19** | **4** | **1** | **0** | **0** | **4** | **12** | **0** | **10** | **5** | **3** |
| **BR** | ***Wolfiporia cocos***  | **1** | **3** | **8** | **18** | **0** | **0** | **0** | **4** | **0** | **2** | **11** | **2** | **19** | **2** | **11** | **2** | **1** | **0** | **0** | **3** | **9** | **0** | **2** | **5** | **0** |
| **BR** | ***Gloeophyllum trabeum***  | **5** | **4** | **11** | **19** | **0** | **0** | **1** | **3** | **0** | **2** | **9** | **2** | **29** | **2** | **11** | **4** | **1** | **2** | **0** | **3** | **10** | **1** | **3** | **5** | **1** |
| **BR** | ***Coniophora puteana***  | **3** | **5** | **13** | **21** | **2** | **2** | **1** | **3** | **0** | **4** | **6** | **2** | **24** | **4** | **28** | **4** | **1** | **2** | **0** | **4** | **13** | **4** | **7** | **13** | **2** |
| **BR** | ***Dacryopinax sp.***  | **1** | **3** | **9** | **24** | **0** | **0** | **1** | **3** | **0** | **1** | **11** | **2** | **14** | **3** | **7** | **3** | **2** | **0** | **1** | **2** | **6** | **2** | **4** | **6** | **1** |
| **MP** | ***Tremella mesenterica***  | **1** | **1** | **3** | **13** | **0** | **0** | **1** | **0** | **0** | **0** | **10** | **2** | **9** | **1** | **4** | **1** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **0** |
| **WR** | ***Dichomitus squalens***  | **4** | **4** | **8** | **19** | **1** | **4** | **0** | **5** | **0** | **3** | **10** | **2** | **35** | **2** | **21** | **4** | **1** | **2** | **0** | **6** | **7** | **0** | **2** | **6** | **2** |
| **WR** | ***Trametes versicolor***  | **2** | **5** | **13** | **22** | **1** | **4** | **1** | **6** | **0** | **5** | **7** | **4** | **31** | **3** | **20** | **6** | **1** | **1** | **0** | **4** | **11** | **0** | **4** | **5** | **3** |
| **WR** | ***Fomitiporia mediterranea***  | **5** | **2** | **8** | **20** | **2** | **2** | **1** | **4** | **0** | **3** | **6** | **1** | **28** | **4** | **17** | **6** | **1** | **1** | **0** | **4** | **17** | **0** | **2** | **5** | **0** |
| **WR** | ***Auricularia delicata*** | **1** | **7** | **14** | **43** | **2** | **8** | **0** | **4** | **3** | **1** | **10** | **2** | **44** | **7** | **36** | **4** | **2** | **1** | **0** | **5** | **14** | **3** | **1** | **11** | **2** |
| **WR** | ***Punctularia strigosozonata***  | **1** | **4** | **14** | **18** | **1** | **5** | **1** | **5** | **1** | **2** | **10** | **4** | **26** | **2** | **14** | **6** | **1** | **1** | **0** | **5** | **13** | **1** | **3** | **8** | **1** |
| **WR** | ***Heterobasidion annosum*** | **2** | **3** | **12** | **16** | **1** | **1** | **1** | **2** | **0** | **4** | **8** | **5** | **23** | **2** | **10** | **4** | **1** | **0** | **0** | **4** | **8** | **2** | **2** | **10** | **1** |
| **WR** | ***Stereum hirsutum***  | **3** | **3** | **17** | **20** | **1** | **3** | **1** | **6** | **1** | **5** | **14** | **3** | **26** | **4** | **21** | **4** | **1** | **0** | **0** | **5** | **17** | **4** | **5** | **8** | **1** |
| **WR** | ***Ganoderma sp. 10597*** | **3** | **3** | **13** | **18** | **1** | **3** | **1** | **10** | **0** | **3** | **8** | **3** | **36** | **3** | **38** | **5** | **1** | **2** | **0** | **3** | **10** | **0** | **3** | **7** | **1** |
| **WR** | ***Bjerkandera adusta***  | **2** | **3** | **9** | **19** | **1** | **5** | **1** | **4** | **0** | **2** | **10** | **2** | **21** | **3** | **16** | **4** | **1** | **1** | **0** | **3** | **6** | **0** | **1** | **4** | **0** |
| **WR** | ***Phlebia brevispora*** | **2** | **2** | **8** | **23** | **1** | **4** | **1** | **8** | **0** | **2** | **8** | **4** | **30** | **2** | **22** | **6** | **1** | **1** | **0** | **2** | **5** | **1** | **2** | **5** | **0** |
| **WR** | ***Phanerochaete\_carnosa*** | **2** | **2** | **11** | **24** | **1** | **6** | **1** | **5** | **1** | **3** | **10** | **2** | **24** | **2** | **11** | **3** | **1** | **0** | **0** | **3** | **4** | **0** | **3** | **8** | **0** |
| **WR** | ***Ceriporiopsis subvermispora***  | **3** | **4** | **6** | **18** | **1** | **3** | **0** | **6** | **1** | **2** | **7** | **3** | **24** | **3** | **14** | **3** | **1** | **1** | **0** | **4** | **6** | **0** | **1** | **5** | **0** |
| **WR** | ***Phanerochaete chrysosporium***  | **2** | **2** | **11** | **19** | **1** | **6** | **1** | **6** | **1** | **2** | **9** | **2** | **23** | **2** | **11** | **3** | **0** | **1** | **0** | **3** | **4** | **0** | **2** | **6** | **0** |
| **WR** | ***Phlebiopsis gigantea*** | **2** | **3** | **9** | **19** | **1** | **5** | **1** | **4** | **2\*** | **3** | **9** | **2** | **23** | **2** | **12** | **4** | **1** | **1** | **0** | **3** | **10** | **0** | **2** | **6** | **0** |

 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\*Number excludes fragmented model. MP, Mycoparasite.

|  |
| --- |
| **Table S7 continued. Glycoside hydrolase comparisons of brown-rot (BR) and white-rot (WR) fungi** |
|  | **Glycoside hydrolase (GH) family** |
| **Species** | **35** | **36** | **37** | **38** | **43** | **44** | **45** | **47** | **51** | **52** | **53** | **54** | **55** | **61** | **63** | **71** | **72** | **74** | **75** |
| ***P. placenta***  | **1** | **0** | **3** | **1** | **1** | **0** | **0** | **5** | **1** | **0** | **1** | **0** | **3** | **2** | **1** | **2** | **2** | **0** | **0** |
| ***F. pinicola***  | **2** | **0** | **2** | **1** | **7** | **0** | **1** | **5** | **4** | **0** | **1** | **0** | **3** | **4** | **1** | **4** | **1** | **0** | **0** |
| ***W. cocos***  | **2** | **0** | **4** | **1** | **1** | **0** | **0** | **5** | **4** | **0** | **1** | **0** | **3** | **2** | **1** | **1** | **2** | **0** | **0** |
| ***G. trabeum***  | **2** | **0** | **2** | **1** | **6** | **0** | **1** | **4** | **4** | **0** | **2** | **0** | **2** | **4** | **1** | **6** | **1** | **1** | **0** |
| ***C. puteana***  | **2** | **0** | **4** | **1** | **6** | **0** | **1** | **9** | **3** | **0** | **1** | **0** | **5** | **10** | **1** | **6** | **1** | **0** | **0** |
| ***Dacryopinax***  | **1** | **1** | **2** | **1** | **5** | **0** | **1** | **4** | **2** | **0** | **1** | **0** | **2** | **0** | **1** | **5** | **1** | **0** | **0** |
| ***T. mesenterica***  | **0** | **1** | **2** | **1** | **0** | **0** | **0** | **4** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **3** | **1** | **0** | **0** |
| ***D. squalens***  | **3** | **0** | **3** | **1** | **7** | **1** | **1** | **5** | **2** | **0** | **1** | **0** | **2** | **15** | **1** | **4** | **1** | **1** | **0** |
| ***T. versicolor***  | **2** | **0** | **2** | **1** | **3** | **0** | **2** | **5** | **2** | **0** | **1** | **0** | **2** | **18** | **1** | **5** | **1** | **1** | **0** |
| ***F. mediterranea***  | **2** | **0** | **3** | **1** | **7** | **0** | **0** | **5** | **1** | **0** | **1** | **0** | **1** | **13** | **1** | **2** | **1** | **4** | **0** |
| ***A. delicata*** | **6** | **0** | **3** | **2** | **28** | **1** | **2** | **12** | **3** | **1** | **1** | **0** | **5** | **20** | **1** | **12** | **1** | **1** | **3** |
| ***P. strigosozonata***  | **4** | **0** | **2** | **1** | **7** | **1** | **1** | **5** | **3** | **0** | **2** | **2** | **3** | **14** | **1** | **5** | **1** | **2** | **0** |
| ***H. annosum*** | **4** | **0** | **2** | **1** | **4** | **0** | **2** | **6** | **1** | **0** | **1** | **0** | **1** | **10** | **1** | **3** | **1** | **1** | **0** |
| ***S. hirsutum***  | **7** | **0** | **2** | **1** | **12** | **1** | **1** | **6** | **3** | **0** | **2** | **0** | **2** | **16** | **1** | **8** | **2** | **2** | **1** |
| ***Ganoderma*** | **7** | **0** | **2** | **1** | **12** | **0** | **2** | **6** | **2** | **0** | **1** | **0** | **3** | **16** | **1** | **6** | **1** | **1** | **0** |
| ***B. adusta***  | **4** | **0** | **3** | **1** | **6** | **0** | **1** | **6** | **2** | **0** | **1** | **0** | **3** | **28** | **1** | **3** | **1** | **2** | **0** |
| ***P. brevispora*** | **4** | **0** | **3** | **1** | **2** | **2** | **3** | **9** | **1** | **0** | **1** | **0** | **4** | **12** | **1** | **4** | **1** | **1** | **0** |
| ***P. carnosa*** | **4** | **0** | **2** | **3** | **4** | **0** | **1** | **5** | **2** | **0** | **1** | **0** | **2** | **11** | **1** | **2** | **1** | **2** | **0** |
| ***C. subvermispora***  | **1** | **0** | **2** | **1** | **2** | **0** | **2** | **4** | **2** | **0** | **6** | **0** | **2** | **9** | **1** | **1** | **1** | **1** | **0** |
| ***P. chrysosporium***  | **3** | **0** | **2** | **1** | **4** | **0** | **2** | **6** | **2** | **0** | **1** | **0** | **2** | **13** | **1** | **3** | **1** | **4** | **0** |
| ***P. gigantea*** | **2** | **0** | **2** | **1** | **7** | **0** | **1** | **6** | **2** | **0** | **1** | **0** | **2** | **15** | **1** | **4** | **1** | **2** | **0** |

|  |
| --- |
| **Table S7 continued. Glycoside hydrolase comparisons of brown-rot (BR) and white-rot (WR) fungi** |
|  | **Glycoside hydrolase (GH) family** |
| **Species** | **76** | **78** | **79** | **81** | **85** | **88** | **89** | **92** | **93** | **94** | **95** | **105** | **114** | **115** | **125** | **127** | **128** | **131** |
| ***P. placenta***  | **0** | **3** | **2** | **0** | **1** | **1** | **1** | **3** | **0** | **0** | **1** | **1** | **0** | **1** | **1** | **0** | **5** | **0** |
| ***F. pinicola***  | **0** | **3** | **3** | **0** | **1** | **1** | **2** | **5** | **0** | **0** | **1** | **3** | **0** | **1** | **1** |  |  |  |
| ***W. cocos***  | **0** | **3** | **3** | **0** | **1** | **1** | **1** | **3** | **0** | **0** | **1** | **0** | **0** | **2** | **1** |  |  |  |
| ***G. trabeum***  | **4** | **2** | **6** | **1** | **1** | **1** | **0** | **4** | **0** | **0** | **1** | **2** | **0** | **2** | **1** |  |  |  |
| ***C. puteana***  | **3** | **2** | **4** | **1** | **1** | **1** | **2** | **4** | **1** | **0** | **1** | **0** | **1** | **2** | **1** |  |  |  |
| ***Dacryopinax***  | **0** | **0** | **7** | **0** | **2** | **1** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **2** | **0** |  |  |  |
| ***T. mesenterica***  | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |  |  |  |
| ***D. squalens***  | **1** | **5** | **13** | **0** | **1** | **1** | **1** | **5** | **1** | **0** | **1** | **1** | **0** | **2** | **1** |  |  |  |
| ***T. versicolor***  | **0** | **3** | **11** | **0** | **1** | **1** | **1** | **4** | **0** | **0** | **1** | **1** | **0** | **2** | **1** |  |  |  |
| ***F. mediterranea***  | **0** | **2** | **7** | **0** | **1** | **2** | **0** | **4** | **0** | **0** | **2** | **1** | **0** | **3** | **1** |  |  |  |
| ***A. delicata*** | **1** | **4** | **13** | **5** | **1** | **2** | **1** | **7** | **1** | **1** | **1** | **3** | **4** | **2** | **1** |  |  |  |
| ***P. strigosozonata***  | **3** | **7** | **9** | **0** | **1** | **1** | **0** | **4** | **1** | **0** | **1** | **2** | **0** | **1** | **1** |  |  |  |
| ***H. annosum*** | **1** | **2** | **9** | **2** | **1** | **1** | **0** | **4** | **0** | **0** | **1** | **2** | **0** | **1** | **1** | **0** | **1** | **2** |
| ***S. hirsutum***  | **4** | **3** | **12** | **2** | **1** | **1** | **0** | **6** | **1** | **0** | **1** | **2** | **0** | **2** | **1** |  |  |  |
| ***Ganoderma*** | **2** | **4** | **12** | **0** | **1** | **1** | **2** | **5** | **2** | **0** | **2** | **1** | **0** | **3** | **1** | **0** | **7** |  |
| ***B. adusta***  | **0** | **2** | **9** | **0** | **1** | **1** | **1** | **3** | **0** | **0** | **1** | **1** | **0** | **2** | **1** | **0** | **5** |  |
| ***P. brevispora*** | **0** | **1** | **11** | **0** | **3** | **1** | **3** | **4** | **0** | **0** | **3** | **0** | **0** | **2** | **1** | **1** | **3** |  |
| ***P. carnosa*** | **0** | **1** | **11** | **0** | **1** | **1** | **1** | **4** | **0** | **0** | **1** | **0** | **0** | **1** |  |  |  |  |
| ***C. subvermispora***  | **0** | **1** | **8** | **0** | **1** | **1** | **2** | **3** | **0** | **0** | **1** | **0** | **0** | **2** | **1** | **1** | **3** | **1** |
| ***P. chrysosporium***  | **0** | **1** | **5** | **0** | **1** | **1** | **2** | **4** | **0** | **0** | **1** | **0** | **0** | **1** | **1** | **0** | **5** | **3** |
| ***P. gigantea*** | **0** | **1** | **7** | **0** | **1** | **1** | **2** | **4** | **0** | **0** | **0** | **0** | **0** | **1** | **1** | **0** | **6** | **2** |