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[Continued on next page]

(54) **Title:** GLYCOSYL HYDROLASE ENZYMES AND USES THEREOF FOR BIOMASS HYDROLYSIS

SEQ ID NO:	Nucleotide/Amino Acid	Description
1.	Nucleotide	Nucleotide sequence of Fv3A, a GH3 enzyme from <i>F. verticilloides</i>
2.	Amino acid	Protein sequence of Fv3A
3.	Nucleotide	Nucleotide sequence of Pf43A, a GH43 enzyme from <i>P. furiculusum</i>
4.	Amino acid	Protein sequence of Pf43A
5.	Nucleotide	Nucleotide sequence of Fv43E, a GH43 enzyme from <i>F. verticilloides</i>
6.	Amino acid	Protein sequence of Fv43E
7.	Nucleotide	Nucleotide sequence of Fv39A, a GH39 enzyme from <i>F. verticilloides</i>
8.	Amino acid	Protein sequence of Fv39A
9.	Nucleotide	Nucleotide sequence of Fv43A, a GH43 enzyme from <i>F. verticilloides</i>
10.	Amino acid	Protein sequence of Fv43A
11.	Nucleotide	Nucleotide sequence of Fv43B, a GH43 enzyme from <i>F. verticilloides</i>
12.	Amino acid	Protein sequence of Fv43B
13.	Nucleotide	Nucleotide sequence of Pa51A, a GH51 enzyme from <i>P. aserina</i>
14.	Amino acid	Protein sequence of Pa51A
15.	Nucleotide	Nucleotide sequence of Gz43A, a GH43 enzyme from <i>G. zeae</i>
16.	Amino acid	Protein sequence of Gz43A
17.	Nucleotide	Nucleotide sequence of Fo43A, a GH43 enzyme from <i>F. oxysporum</i>
18.	Amino acid	Protein sequence of Fo43A
19.	Nucleotide	Nucleotide sequence of Af43A, a GH43 enzyme from <i>A. fumigatus</i>
20.	Amino acid	Protein sequence of Af43A
21.	Nucleotide	Nucleotide sequence of Pf51A, a GH51 enzyme from <i>P. furiculusum</i>
22.	Amino acid	Protein sequence of Pf51A
23.	Nucleotide	Nucleotide sequence of AfuXyn2, a GH11 enzyme from <i>A. fumigatus</i>
24.	Amino acid	Protein sequence of AfuXyn2
25.	Nucleotide	Nucleotide sequence of AfuXyn5, a GH11 enzyme from <i>A. fumigatus</i>
26.	Amino acid	Protein sequence of AfuXyn5
27.	Nucleotide	Nucleotide sequence of Fv43D, a GH43 enzyme from <i>F. verticilloides</i>
28.	Amino acid	Protein sequence of Fv43D
29.	Nucleotide	Nucleotide sequence of Pf43B, a GH43 enzyme from <i>P. furiculusum</i>
30.	Amino acid	Protein sequence of Pf43B
31.	Nucleotide	Nucleotide sequence of Fv51A, a GH51 enzyme <i>F. verticilloides</i>
32.	Amino acid	Protein sequence of Fv51A
33.	Nucleotide	Nucleotide sequence of Cg51B, a GH51 enzyme from <i>C. globosum</i>
34.	Amino acid	Protein sequence of Cg51B
35.	Nucleotide	Nucleotide sequence of Fv43C, a GH43 enzyme from <i>F. verticilloides</i>

FIG. 1A

(57) **Abstract:** The present invention relates to compositions that can be used in hydrolyzing biomass such as compositions comprising a polypeptide having glycosyl hydrolase (GH) family 61/endoglucanase activity and/or a β -glucosidase polypeptide, methods for hydrolyzing biomass material, and methods for using such compositions.



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