TITLE OF THE INVENTION: ENGINEERED GLYCOSYLTRANSFERASES AND STEVIOL GLYCOSIDE GLUCOSYLATION METHODS

Abstract

The present invention provides engineered glycosyltransferase (GT) enzymes, polypeptides having GT activity, and polynucleotides encoding these enzymes, as well as vectors and host cells comprising these polynucleotides and polypeptides. The present invention provides engineered sucrose synthase (SuS) enzymes, polypeptides having SuS activity, and polynucleotides encoding these enzymes, as well as vectors and host cells comprising these polynucleotides and polypeptides. The present invention also provides compositions comprising the GT enzymes and methods of using the engineered GT enzymes to make products with β-glucose linkages. The present invention further provides compositions and methods for the production of rebaudiosides (e.g., rebaudioside M, rebaudioside A, rebaudioside I, and rebaudioside D). The present invention also provides compositions comprising the SuS enzymes and methods of using them. Methods for producing GT and SuS enzymes are also provided.

[NO FIGURE]