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(54) Title: OVER-EXPRESSION OF HADH-DEPENDENT OXIDOREDUCTASE (FUCO) FOR INCREASING FURFURAL OR 5-HYDROXYMETHYLFURFURAL TOLERANCE

(57) Abstract: The subject invention pertains to the discovery that the NADH-dependent propanediol oxidoreductase (FucO) can reduce furfural. This allows for a new approach to improve furfural tolerance in bacterial and/or yeast cells used to produce desired products. Thus, novel biocatalysts (bacterial, fungal or yeast cells) exhibiting increased tolerance to furfural and 5-hydroxymethylfurfural (5-HMF) are provided as are methods of making and using such biocatalysts for the production of a desired product.



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