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(54) Title: TRIACYLGLYCEROL-DEFICIENT FISSION YEAST AND ITS USES

(57) Abstract: A fission yeast having non-functional *dgal* and *plhl* genes, which is incapable of synthesizing triacylglycerols, is disclosed. The fission yeast is susceptible to lipotoxicity including lipoapoptosis, and is useful for screening of compounds that inhibit or prevent lipotoxicity or lipoapoptosis. The fission yeast strain may be transformed to express a mammalian enzyme involved in triacylglycerol synthesis, and therefore is also useful for screening of compounds that inhibit or prevent triacylglycerol synthesis, which activity is conferred by the mammalian enzyme.

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