Production of ω-Amino Fatty Acids

Abstract

The invention relates to a whole cell catalyst which expresses a recombinant α-dioxygenase or the combination of a recombinant fatty acid reductase and a phosphopantetheinyl transferase phosphopantetheinylating the fatty acid reductase, and which in addition to the α-dioxygenase and/or the combination of fatty acid reductase and phosphopantetheinyl transferase expresses a transaminase, characterized in that the phosphopantetheinyl transferase and/or transaminase is preferably recombinant; and a method for the conversion of a fatty acid, ω-hydroxy fatty acid, ω-oxo fatty acid or a monoester thereof to an amine, comprising the steps oxidation of the fatty acid, ω-hydroxy fatty acid, ω-oxo fatty acid or the monoester thereof to an oxidation product by contacting with an alkane hydroxylase and/or alcohol dehydrogenase, contacting the oxidation product with a phosphopantetheinylated fatty acid reductase or a α-dioxygenase to give an aldehyde, and contacting the aldehyde with a transaminase.

(No suitable figure)