Creative Enzymes®

UDP-3-O-(3-hydroxymyristoyl)glucosamine N-acyltransferase

Cat. No. EXWM-2134

Lot. No. (See product label)

Introduction

Description The enzyme catalyses a step of lipid A biosynthesis. LpxD from Escherichia prefers (R,S)-3-hydroxytetradecanoyl-[acyl-carrier protein] over (R,S)-3-hydroxyhexadecanoyl-[acyl-carrier protein]. Escherichia coli lipid A acyltransferases do not have an absolute specificity for 14-carbon hydroxy fatty acids but can transfer fatty acids differing by one carbon unit if the fatty acid substrates are available. When grown on 1% propionic acid, lipid A also contains the odd-chain fatty acids tridecanoic acid, pentadecanoic acid, hydroxytridecanoic acid, and hydroxypentadecanoic acid.

Synonyms UDP-3-O-acyl-glucosamine N-acyltransferase; UDP-3-O-(R-3-hydroxymyristoyl)-glucosamine N-acyltransferase; acyltransferase LpxD; acyl-ACP:UDP-3-O-(3-hydroxyacyl)-GlcN N-acyltransferase; firA (gene name); lpxD (gene name); (3R)-3-hydroxymyristoyl-[acyl-carrier protein]:UDP-3-O-[(3R)-3-hydroxymyristoyl]-α-D-glucosamine N-acetyltransferase

Product Information

Form Liquid or lyophilized powder

EC Number EC 2.3.1.191

Reaction (3R)-3-hydroxytetradecanoyl-[acyl-carrier protein] + UDP-3-O-[(3R)-3-hydroxytetradecanoyl]-α-D-glucosamine = UDP-2-N,3-O-bis[(3R)-3-hydroxytetradecanoyl]-α-D-glucosamine + a holo-[acyl-carrier protein]

Notes This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.