

3-galactosyl-N-acetylglucosaminide 4- α -L-fucosyltransferase

Cat. No. EXWM-2608

Lot. No. (See product label)

Introduction

Description

This enzyme is the product of the Lewis blood group gene. Normally acts on a glycoconjugate where R (see reaction) is a glycoprotein or glycolipid. Although it is a 4-fucosyltransferase, it has a persistent 3-fucosyltransferase activity towards the glucose residue in free lactose. This enzyme fucosylates on O-4 of an N-acetylglucosamine that carries a galactosyl group on O-3, unlike EC 2.4.1.152, 4-galactosyl-N-acetylglucosaminide 3- α -L-fucosyltransferase, which fucosylates on O-3 of an N-acetylglucosamine that carries a galactosyl group on O-4. Enzymes catalysing the 4- α -fucosylation of the GlcNAc in β -D-Gal-(1 \rightarrow 3)- β -GlcNAc sequences (with some activity also as 3- α -fucosyltransferases) are present in plants, where the function in vivo is the modification of N-glycans. In addition, the fucTa gene of Helicobacter strain UA948 encodes a fucosyltransferase with both 3- α - and 4- α -fucosyltransferase activities.

Synonyms

(Lea)-dependent (α -3/4)-fucosyltransferase; α (1,3/1,4) fucosyltransferase III; α -(1 \rightarrow 4)-L-fucosyltransferase; α -4-L-fucosyltransferase; β -acetylglucosaminylsaccharide fucosyltransferase; FucT-II; Lewis α -(1 \rightarrow 3/4)-fucosyltransferase; Lewis blood group α -(1 \rightarrow 3/4)-fucosyltransferase; Lewis(Le) blood group gene-dependent α -(1 \rightarrow 3/4)-L-fucosyltransferase; blood group Lewis α -4-fucosyltransferase; blood-group substance Lea-dependent fucosyltransferase; guanosine diphosphofucose- β -acetylglucosaminylsaccharide 4- α -L-fucosyltransferase; guanosine diphosphofucose-glycoprotein 4- α -L-fucosyltransferase; guanosine diphosphofucose-glycoprotein 4- α -fucosyltransferase; 3- α -galactosyl-N-acetylglucosaminide 4- α -L-fucosyltransferase; GDP- β -L-fucose:3- β -D-galactosyl-N-acetyl-D-glucosaminyl-R 4I- α -L-fucosyltransferase; GDP-L-fucose:3- β -D-galactosyl-N-acetyl-D-glucosaminyl-R 4I- α -L-fucosyltransferase

Product Information

Form Liquid or lyophilized powder

EC Number EC 2.4.1.65

CAS No. 37277-69-3

Reaction GDP- β -L-fucose + β -D-galactosyl-(1 \rightarrow 3)-N-acetyl-D-glucosaminyl-R = GDP + β -D-galactosyl-(1 \rightarrow 3)-[α -L-fucosyl-(1 \rightarrow 4)]-N-acetyl- β -D-glucosaminyl-R

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.