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→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→4)-L-fucosyltransferase; α-4-L-fucosyltransferase; β-acetylglucosaminylsaccharide fucosyltransferase; FucT-II; Lewis α-(1→3/4)-fucosyltransferase; Lewis blood group α-(1→3/4)-fucosyltransferase; Lewis(Le) blood group gene-dependent α-(1→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→3)-N-acetyl-D-glucosaminyl-R = GDP + β-D-galactosyl-(1→3)-[α-L-fucosyl-(1→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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.