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# Product Information

## MemDX™ Membrane Protein Human B4GALT2 (Beta-1,4-galactosyltransferase 2) Full Length

Cat. No.: **MPC3059K**
This product is for research use only and is not intended for diagnostic use.

This product is a made-to-order Human B4GALT2 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

## Product Specifications

**Host Species**
Human

**Target Protein**
B4GALT2

**Protein Length**
Full length

**Protein Class**
Transferase

**TMD**
1

**Sequence**
MSRLLGGTLERVCKAVLLLCLLHFLVAVILYFDVYAQHLAFFSRFSARGP
AHALHPAASSSSSSSNCSRPNATASSSGLPEVPSALPGPTAPTLPPCPDS
PPGLVGRLLIEFTSPMPLERVQRENPGVLMGGRYTPPDCTPAQTVAVIIP
FRHREHHLRYWLHYLHPILRRQRLRYGVYVINQHGEDTFNRAKLLNVGFL
EALKEDAAYDCFIFSDVDLVPMDDRNLYRCGDQPRHFAIAMDKFGFRLPY
AGYFGGVSGLSKAQFLRINGFPNEYWGWGGEDDDIFNRISLTGMKISRPD
IRIGRYRMIKHDRDKHNEPNPQRFTKIQNTKLTMKRDGIGSVRYQVLEVS
RQPLFTNITVDIGRPPSWPPRG

## Product Description

**Expression Systems**
HEK293

**Tag**
Based on specific requirements

**Protein Format**

Detergent or based on specific requirements (Detergent, Liposome, Nanodisc, Polymer, VLP)

**Form**

Liquid

**Storage**

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

## Target

**Target Protein**

B4GALT2

**Full Name**

Beta-1,4-galactosyltransferase 2

**Introduction**

This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, and Xyl. Each beta4GalT has a distinct function in the biosynthesis of different glycoconjugates and saccharide structures. As type II membrane proteins, they have an N-terminal hydrophobic signal sequence that directs the protein to the Golgi apparatus and which then remains uncleaved to function as a transmembrane anchor. By sequence similarity, the beta4GalTs form four groups: beta4GalT1 and beta4GalT2, beta4GalT3 and beta4GalT4, beta4GalT5 and beta4GalT6, and beta4GalT7. The enzyme encoded by this gene synthesizes N-acetyllactosamine in glycolipids and glycoproteins. Its substrate specificity is affected by alpha-lactalbumin but it is not expressed in lactating mammary tissue. Three transcript variants encoding two different isoforms have been found for this gene.

**Alternative Names**

B4GALT2; B4Gal-T2; B4Gal-T3; beta4Gal-T2; N-acetyllactosamine synthase; UDP-Gal:beta-GlcNAc beta-1,4-galactosyltransferase 2; UDP-Gal:betaGlcNAc beta 1,4- galactosyltransferase 2; UDP-Gal:betaGlcNAc beta 1,4-galactosyltransferase, polypeptide 2p; UDP-galactose:beta-N-acetylglucosamine beta-1,4-galactosyltransferase 2; beta-1,4-GalTase 2; beta-4-GalT2; beta-N-acetylglucosaminyl-glycolipid beta-1,4-galactosyltransferase 2; beta-N-acetylglucosaminylglycopeptide beta-1,4-galactosyltransferase; lactose synthase A protein; nal synthase; Beta-1,4-galactosyltransferase 2

**Gene ID**

8704

**UniProt ID**

O60909