

Product datasheet for KN200258LP

OriGene Technologies, Inc.

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B4GALT7 Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control

Donor DNA: Luciferase-Puro

Symbol: B4GALT7 Locus ID: 11285

Components: KN200258G1, B4GALT7 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN200258G2, B4GALT7 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN200258LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: <u>NM 007255</u>

UniProt ID: Q9UBV7

Synonyms: EDSP1; XGALT1; XGPT1

Summary: This gene is a member of the beta-1,4-galactosyltransferase (beta4GalT) family. Family

members encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose. Each beta4GalT member 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 which then remains uncleaved to function as a

transmembrane anchor. The enzyme encoded by this gene attaches the first galactose in the common carbohydrate-protein linkage (GlcA-beta1,3-Gal-beta1,3-Gal-beta1,4-Xyl-beta1-O-Ser) found in proteoglycans. This enzyme differs from other beta4GalTs because it lacks the

conserved Cys residues found in beta4GalT1-beta4GalT6 and it is located in cis-Golgi instead of trans-Golgi. Mutations in this gene have been associated with the progeroid form of Ehlers-

Danlos syndrome. [provided by RefSeq, Oct 2009]





Product images:

Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter