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Product datasheet for KN200258

B4GALT7 Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control

Donor DNA: GFP-puro

Symbol: B4GALT7

Locus ID: 11285

Components: **KN200258G1**, B4GALT7 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGAAAGCGGCGCAGCTGCCC
KN200258G2, B4GALT7 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTGGGAGGACGGCAGGTGAG
KN200258D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
Homologous arm and GFP-puro sequences:
pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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GGGATCATGT AACTCGCCTT

GE100003, scramble sequence in pCas-Guide vector

Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

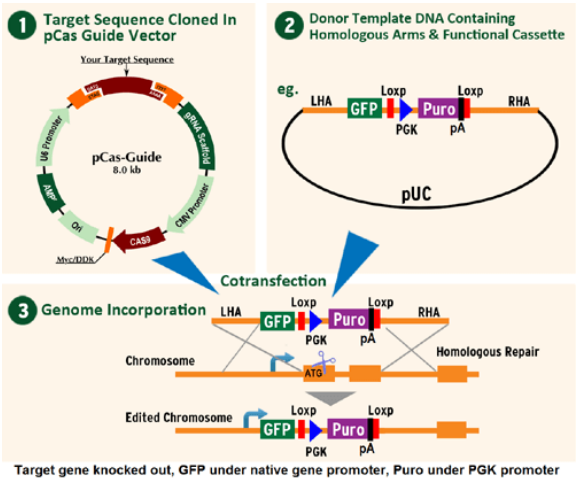
RefSeq: NM_007255

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:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter