

Product datasheet for **KN222133**

XYLT1 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: XYLT1
Locus ID: 64131
Components: **KN222133G1**, XYLT1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AATTTCAAGCAGCCTCGACTC
KN222133G2, XYLT1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGCTGCAGACGCTGGTCTGTG
KN222133D, 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**

```
AAGGCGAGTT ACATGATCCC CCATGTTGTG CAAAAAAGCG GTTAGCTCCT TCGGTCCTCC GATCGTTGTC
AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
CATCCGTAAG ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT GTATGCCGGC
ACCGAGTTGC TCTTGCCCGG CGTCAATACG GGATAATACC GCGCCACATA GCAGAATTTT AAAAGTGCTC
ATCATTGGAA AACGTTCTTC GGGCGAAAAA CTCTCAAGGA TCTTACCGCT GTTGAGATCC AGTTCGATGT
AACCCACTCG TGCACCCAAC TGATCTTCAG CATCTTTTAC TTTCAACCAGC GTTTCTGGGT GAGCAAAAAC
AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT
TTTCAATATT ATTGAAGCAT TTATCAGGT TATTGTCTCA TGAGCGGATA CATATTTGAA TGTATTTAGA
AAAATAACA AATAGGGGTT CCGCGCAT TCCCCGAAA AGTGCCACCT GACGTCTAAG AAACCATTAT
TATCATGACA TTAACCTATA AAAATAGGCG TATCACGAGG CCCTTTCGGG TCGCGGTTT CGGTGATGAC
GGTAAAACC TCTGACACAT GCAGCTCCCG TTGACGGTCA CAGCTTGCT GTAAGCGGAT GCCGGGAGCA
GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCTGG CTTAACTATG CGGCATCAGA
GCAGATTGTA CTGAGAGTGC ACCATAAAAT TGTAACGTT AATATTTTGT TAAAATTCGC GTTAAATTTT
TGTTAAATCA GCTCATTTTT TAACCAATAG GCCGAAATCG GCAAAATCCC TTATAATCA AAAGAATAGC
CCGAGATAGG GTTGAGTGTT GTTCCAGTTT GGAACAAGAG TCCACTATTA AAGAACGTGG ACTCCAACGT
CAAAGGGCGA AAAACCGTCT ATCAGGGCGA TGGCCCACTA CGTGAACCAT CACCAAATC AAGTTTTTTG
GGGTCGAGGT GCCGTAAAGC ACTAAATCGG AACCCATAAG GGAGCCCCCG ATTTAGAGCT TGACGGGGAA
AGCCGGCGAA CGTGCGGAGA AAGGAAGGGA AGAAAGCGAA AGGAGCGGGC GCTAGGGCGC TGGCAAGTGT
AGCGGTACG CTGCGGTAA CCACCACACC CGCCGCGCTT AATGCGCCG TACAGGGCGC GACTATGGT
TGCTTTGACG TATGCGGTGT GAAATACCGC ACAGATCGCT AAGGAGAAAA TACCGCATCA GGCGCCATTC
GCCATTCAGG CTGCGCAACT GTTGGGAAGG GCGATCGGTG CGGGCCTCTT CGTATTACG CCAGCTGGCG
AAAGGGGAT GTGCTGCAAG GCGATTAAGT TGGTAACGC CAGGGTTTTC CCAGTACGA CGTTGTAATA
CGACGGCCAG TGAATTGGAG GCTACAGTCA GTGGAGAGGA CTTTCACTGA CTGACTGACT GCGTCTCAAC
```



[View online »](#)

CTATGAAGGG ATCAGACTGT GGCTCTGACA CTCCTGAAAT GTTTCTCAGG TGTCCACCTG CCAACCGGTC
 TGGTACCGAC AGAAGATCCC TGGACCGCGA ACTCCGGGGC TAGGAGCTTC CTCCACGCAC TGCCTCCTTC
 CAGCGGCCCA CAGGAAAAAC AGGACCTCGG GACCCCTCTT CTTCTGACC TCCCCTGGAT TCTGAGCGGG
 CCCACCCTCA ACCAAAGGTC CCCTGTTTCG CGGCCCTGC CTCTCTTTTT CCGCCTTGGG AATTGTCCCC
 CTCGCCCCCC ATCCTACTCC CACTACGTCC TGAGGGGTGT CTGTCTTCTC TGATCGCCCC CACCCCTTC
 CTTTCCCTCC TCCTTTTCTC CCCTCGGCTC CTCCCCCAGG CCCCCTCCG TCCGCCTCGG CCCGCGTCCC
 CCCGGCGCCT TCCCATCAC CCTCCCCTCC AGCGGGGACA GGGGTGTGGG GAGGGGGCGG GCGCGGCGG
 CCCGAGCGGG AGCCCGAGCG GCAGCCGCGG GCCGCGGGAG CTGCGGGGAG CGCGGGGGCG GCCCGAGCG
 TGCCGGGGTC CCCGCGCCTC GCTCGCCGGC CGCGCTCCGA AGACTAGCAT GGAGAGCGAC GAGAGCGGCC
 TGCCCGCCAT GGAGATCGAG TGC CGCATCA CCGGCACCTT GAACGGCGTG GAGTTCGAGC TGGTGGGCGG
 CGGAGAGGGC ACCCCGAGC AGGGCCGCAT GACCAACAAG ATGAAGAGCA CCAAAGCGC CCTGACCTTC
 AGCCCTACC TGCTGAGCCA CGTGATGGG TACGGCTTCT ACCACTTCGG CACCTACCCC AGCGGTACG
 AGAACCCCTT CCTGCACGCC ATCAACAACG GCGGCTACAC CAACACCCG ATCGAGAAGT ACGAGGACGG
 CGCGGTGCTG CACGTGAGCT TCAGTACCG CTACGAGGCC GGCCGCGTGA TCGGCGACTT CAAGGTGATG
 GGCACCGGCT TCCCAGAGG CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC
 ACCTGCACCC CATGGGCGAT AACGATCTGG ATGGCAGCTT CACCCGACC TTCAGCCTGC GCGACGCGG
 CTA CTACAGC TCCGTGGTGG ACAGCCACAT GCACTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC
 GGGGGCCCA TGTTCCGCTT CCGCCGCGTG GAGGAGGATC ACAGCAACAC CGAGCTGGG ATCGTGGAGT
 ACCAGCACGC CTTCAAGACC CCGGATGCAG ATGCCGGTGA AGAAAGAGT TAAGAATTCC GATCATATTC
 AATAACCTT AATATAACTT CGTATAATGT ATGCTATACG AAGTTATTAG GTCTGAAGAG GAGTTTACGT
 CCAGCCAAGC TTAGGATCTC GACCTCGAAA TTCTACCGGG TAGGGGAGG GCTTTTCCCA AGGCAGTCTG
 GAGCATGCGC TTTAGCAGCC CCGCTGGGCA CTTGGCGCTA CACAAGTGGC CTCTGGCCTC GCACACATTC
 CACATCCACC GGTAGGCGCC AACCGACTCC GTTCTTTGGT GGCCCTTCG GCCACCTTC TACTCCTCCC
 CTAGTCAGGA AGTTCCCCCG CGCCCGCAG CTGCGTCTGT GCAGGACGTG CAAAATGGAA GTAGCACGTC
 TCACTAGTCT CGTGCAGATG GACAGCACCG CTGAGCAATG GAAGCGGGTA GGCCTTTGGG GCAGCGCCA
 ATAGCAGCTT TGCTCCTTCG CTTTCTGGG TCAGAGGCTG GAAAGGGGTG GGTCCGGGGG CGGGCTCAGG
 GCGGGGCTCA GGGCGGGGCG GGGCGCCCGA AGGTCTCCG GAGGCCCGG ATTCTGCACG CTTCAAAGC
 GCACGTCTGC CGCGCTGTTC TCCTTCTCCT CATCTCCGGG CCTTTCGACC TGCATCCATC TAGATCTCGA
 GCAGCTGAAG CTTACCATGA CCGAGTACAA GCCACGGTG CGCCTCGCCA CCCGCGACGA CGTCCCAGG
 GCCGTACGCA CCCTCGCCG CGCGTTCCG GACTACCCG CCACGCGCCA CACCGTCGAT CCGGACCGC
 ACATCGAGCG GGTACCGAG CTGCAAGAAC TTTCTCAC GCGCGTGGG CTCGACATCG GCAAGGTGTG
 GGTGCGGAC GACGGCGCCG CGGTGGCGGT CTGGACCAG CCGGAGAGCG TCGAAGCGGG GCGGTGTTC
 GCCGAGATCG GCCCGCGCAT GGCCGAGTTG AGCGGTTCCG GGTGGCCG GCAGCAACAG ATGGAAGGCC
 TCCTGGCGCC GCACCGGCC AAGGAGCCG CGTGGTCTT GGCACCGTC GCGTCTCGC CCGACCACCA
 GGGCAAGGGT CTGGGACGCG CCGTCGTGCT CCCCAGGAGT GAGGCGGCGG AGCGCGCCG GGTGCCCGC
 TTCTGGAGA CTTCCGCGCC CCACAACCTC CCTTCTACG AGCGGCTCG CTTACCGTC ACCGCCGACG
 TCGAGGTGCC CGAAGGACCG CGCACCTGGT GCATGACCCG CAAGCCCGGT GCCTGACGC CGCCCCACGA
 CCCGACGCGC CCGACCGAAA GGAGCGCACG ACCCATGCA TCGATGATAT CAGATCCCCG GGATGCAGAA
 ATTGATGATC TATTAACAA TAAAGATGTC CACTAAAATG GAAGTTTTTC CTGTCATACT TTGTTAAGAA
 GGGTGAGAAC AGAGTACCTA CATTTTGAAT GGAAGGATTG GAGTACGGG GGTGGGGGTG GGTGGGATT
 AGATAAATGC CTGCTCTTTA CTGAAGGCTC TTTACTATTG CTTTATGATA ATGTTTCATA GTTGATATC
 ATAATTTAAA CAAGCAAAAC CAAATTAAGG GCCAGCTCAT TCCTCCACT CATGATCTAT AGATCTATAG
 ATCTCTCGTG GGATCATTGT TTTTCTTTG ATTCCACTT TGTGGTCTA AGTACTGTG TTTCCAAATG
 TGTGAGTTT ATAGCCTGAA GAACGAGATC AGCAGCTCT GTTCCACATA CACTTCATTC TCAGTATTGT
 TTTGCCAAGT TCTAATTCCA TCAGAAGCTG GTCGAGATCC GGAACCCTTA ATATAACTTC GTATAATGTA
 TGCTATACGA AGTTATTAGG TCCCTCGAAG AGTTCACTA GCGCGCCTC **TGGTAAGATG CCCTTTCGGC**
TCGCGCCCG CGCGAGGGA GGGAGGAAG CAGCCCACC CCACGCCCC CTAGCCCTTG AACTCGGTCA
TCAGACTGG ACTCTGCAAG CCTACCGACT CCACATGCC TCTTGCCCG GGAAGCCGG TGGGGTCCCT
GCCAAGGCTC AGGGTCTGT GGCTGCCCT TTCAGAGTCT GAGCACGGAC CCCTGGGGT CTGGGGGAAG
TTTTCTCCAG CGGGGGCGCT TTGGGGTTA CCGGAGCCTG GCTGGGTTCC TGTTCCCAT CACTCTTGCT
GGGGACCCCA GGTGACTTGC TCCGTGCGTG TAGGTCTTGG TGACTCGCTC CCTGCCTGAG TGAGTGGATC
TCCCCGATC CTCAGCCGCT GTTCTGGGC GGTGTGCGA GCAGCATCTC TCTGTTTTT GCCGAGCTGG

GTGCAGACAG TTGAGCCCTC TGTTTCGTCT GGCCTGCGAT GAGGGCTGAG CTGGGCGTCC CAAGTCCCCG
 ACCATGCCCC TGAATCAATA CTCAGTCCGG GGTGTCTGGT CTTACTTTGG GTCTTCTGTT TCTCTTCTCT
 GGATGTTTGA GCCTTCCGAG CAAGAGACGA CTGACTGACT GACTGGAAAG AGGAAGGGCT GGAAGAGGAA
 GGAGCTTGGC GTAATCATGG TCATAGCTGT TTCCTGTGTG AAATTGTTAT CCGCTCACAA TTCCACACAA
 CATACGAGCC GGAAGCATAA AGTGATAAGC CTGGGGTGCC TAATGAGTGA GCTAACTCAC ATTAATTGGC
 TTGCGCTCAC TGCCCGCTTT CCAGTCGGGA AACCTGTCTG GCCAGCTGCA TTAATGAATC GGCCAACGCG
 CGGGGAGAGG CGGTTTGGGT ATTGGGCGCT CTTCCGCTTC CTCGCTCACT GACTCGCTGC GCTCGGTCTG
 TCGGCTGCGG CGAGCGGTAT CAGCTCACTC AAAGGCGGTA ATACGGTTAT CCACAGAATC AGGGGATAAC
 GCAGGAAAGA ACATGTGAGC AAAAGGCCAG CAAAAGGCCA GGAACCGTAA AAAGGCCGCG TTGCTGGCGT
 TTTTCCATAG GCTCCGCCCC CCTGACGAGC ATCACAACAAA TCGACGCTCA AGTCAGAGGT GGCGAAACCC
 GACAGGACTA TAAAGATACC AGGCGTTTCC CCCTGGAAGC TCCCTCGTGC GCTCTCCTGT TCCGACCCTG
 CCGCTTACCG GATACCTGTC CGCCTTTCTC CTTTCGGGAA GCGTGGCGCT TTCTCATAGC TCACGCTGTA
 GGTATCTCAG TTCGGTGTAG GTCGTTCCGCT CCAAGCTGGG CTGTGTGCAC GAACCCCGG TTCAGCCCGA
 CCGCTGCGCC TTATCCGGTA ACTATCGTCT TGAGTCCAAC CCGTAAGAC ACGACTTATC GCCACTGGCA
 GCAGCCACTG GTAACAGGAT TAGCAGAGCG AGGTATGTAG GCGGTGCTAC AGAGTCTTGT AAGTGGTGGC
 CTAACACTAGG CTACACTAGA AGAACAGTAT TTGGTATCTG CGCTCTCTG AAGCCAGTTA CCTTCGGAAA
 AAGAGTTGGT AGCTCTTGAT CCGGCAAACA AACACCCTG GGTAGCCGTG GTTTTTTTGT TTGCAAGCAG
 CAGATTACGC GCAGAAAAA AGGATCTCAA GAAGATCCTT TGATCTTTTC TACGGGGTCT GACGCTCAGT
 GGAACGAAAA CTCACGTAA GGGATTTTGG TCATGAGATT ATCAAAAAGG ATCTTCACCT AGATCCTTTT
 AAATTAATAA TGAAGTTTTA AATCAATCTA AAGTATATAT GAGTAACTT GGTCTGACAG TTACCAATGC
 TTAATCAGTG AGGCACCTAT CTCAGCGATC TGCTATTTTC GTTCATCCAT AGTTGCCTGA CTCCCCGTCG
 TGATAGATAAC TACGATACGG GAGGGCTTAC CATCTGGCCC CAGTGTGCA ATGATACCGC GAGAACCACG
 CTCACCCGCT CCAGATTTAT CAGCAATAAA CCAGCCAGCC GGAAGGGCCG AGCGCAGAAG TGGTCTGCA
 ACTTTATCCG CCTCCATCCA GTCTATTAAT TGTTGCCGGG AAGCTAGAGT AAGTAGTTCG CCAGTTAATA
 GTTTGCGCAA CGTTGTTGCC ATTGCTACAG GCATCGTGGT GTCACGCTCG TCGTTTGTA TGGCTTCATT
 CAGCTCCGGT TCCCAACGAT C

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_022166](#)

UniProt ID:

[Q86Y38](#)

Synonyms:

DBQD2; PXYLT1; XT-I; XT1; XTI; xyIT-I; XYLT1

Summary:

This locus encodes a xylosyltransferase enzyme. The encoded protein catalyzes transfer of UDP-xylose to serine residues of an acceptor protein substrate. This transfer reaction is necessary for biosynthesis of glycosaminoglycan chains. Mutations in this gene have been associated with increased severity of pseudoxanthoma elasticum.[provided by RefSeq, Nov 2009]

Product images:

