

## Product datasheet for **MG218127**

### **Xylt1 (NM\_175645) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Xylt1 (NM_175645) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Xylt1
Synonyms:	8030490L12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218127 representing NM\_175645  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGGCGGCGCCGTGCGCCCGGAGGCTGGCGCGGCGCTCGCACTCGGCGCTGCTGGCGGCGCTCATGG  
 TGCTGCTGCTGCAGACGCTGGTGGTGTGGAATTCAGCAGCCTGGACTCCGGGGCTGGAGAGCAGCGGCG  
 CGCGGGGCGAGCGCGGGAGCAGCCGAGCAGCAGCAGCCCGCGGCCCGCGCCGGAGCGCAGGGACCTG  
 GCTGCCCATCTGCCCGCAGCCCGCGGAGGACCTGGAGGCCGAGCCGGGAGGAGGAGCAGGGGAGGCG  
 GCCCGGAGGAGCCCGGCACAGCAGCCTGCCAGCCGCGGGGCACTAGCCTCCCGGGCGAGGGATCCACA  
 ACCAAGTCCACTGATCACCTAGAGACCCAGGATGGCTACTTCTCTCACCGTCCCAAAGAGAAAGTTCGG  
 ACCGACAGCAACAATGAGAACTCAGTCCCCAAGGACTTTGAGAATGTGGATAACAGCAACTTCGCCCCCA  
 GGACCCAGAAGCAGAAACACCAGCCAGAGCTGGCAAAGAAGCCCCCAGCAGGCAGAAAGAGCATTTCGA  
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 CCTCTCGGGAGAAAGCCACAGGCAACAGTAGCCAAGGGAAGGATCTCTCAAGACACAGCCATGCCAGGA  
 AGAGTGGTGGTGGTGGTCCCCGAAACCAAGTCTGACCAGGCCCCCAAGTGTGATATCTCTGGCAAGGA  
 GGCCATCTCAGCACTGACCCGCGCTAAGTCCAAGCATTGTGCCAGGAGATTGCAGAAACCTACTGTGCG  
 CACAAGCTGGGGCTGCTGATGCCAGAGAAGGTGGCTCGATTCTGTCCCCTAGAAGGCAAAGCCAAACAAG  
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 GGTCCATGGCCGTGCCTCTGCACAGCTACAGCGCATGTTCAAGGCCATCTACCACAAAGACCATTCTAC  
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 ACACATGTGGCGCTGGGGGACCGCGGATCCCAGAGGGCATTGCTGTGGATGGTGGTCTGATTGGTTC  
 CTGCTAAACAGGAAGTTTGTAGAGTATGTGGCATTCTCCACAGATGACCTGGTGACCAAGATGAAGCAGT  
 TCTACTCTACACCTTCTCCCTGCTGAGTCTTTTTCCACACGGTCTAGAGAACAGCCCCACTGTGA  
 CACCATGGTGGATAACAACCTGCGCATCACTCAACTGGAACCGCAAGCTGGGCTGCAAGTCCAGTACAAG  
 CATATCGTGGACTGGTGGGCTGCTCTCCAATGACTTCAAGCCTCAGGACTTCCATCGCTCCAGCAGA  
 CAGCCCGGCCACCTTCTTTGCCGAAAGTTCGAAGCCATAGTGAACCAGGAGATCATTGGGAGCTGGA  
 CTCTTACCTGTACGGAACTATCCTGCGGGCACCCGGGCTCCGCTCCTACTGGGAGAATGTCTACGAT  
 GAACCAGATGGCATCCACACCTCAGCGATGTAGCCCTCACCTGTACCATTCCTTCATCCGCTGGGTC  
 TTCGAAGAGCTGAGTCACTCCCTACACACGGATGGGGAGAACAGCTGCAGGTAACCCATGGGCCACCC  
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 CTTGCTGTGAGCAAACCTGGAGACTGGAGACATGGATGATGCCAAAGAAAGTCTCAAGGTCGCAAGTC  
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 GAAGATTCTCCATCACTGGGTGCCAGTGGCAGAGACCAAATTCCTTGTGGCACCTTTGACCTTTTCAAC  
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 AGAGTTTCCAGAGCCTGAACCCAGTCTCAGCCTGCACATCAATCCTGCCAAGTGAACAGGCCCGGAA  
 GAATGCAGCCTTACCGGGACAGCGCTAGAAGCCTGGCTGGACTCGTGGTGGTGGGACTTGGACTGCC  
 ATGGACATCTGCACCACAGGCCACCCTGCCAGTCAATGCAGACCTGCAGCCAAACAGCCTGGAGTT  
 CCTCAGCCCTGATCCCAAGTCAAGCTGGGTGCAGTCAAACCTGACGGACGGCTCAGG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG218127 representing NM\_175645  
 Red=Cloning site Green=Tags(s)

MVAAPCARRLARRSHSALLAALMVLQLTLVWVNFSSLDGAGEQRRAGAAAGAAEQQPAAPRRRRDL  
 AAHLPAARGPGGRAGGGGARGGGPGGARAQQPASRGALASRARDPQPSPLITLETQDGYFSHRPKEKVR  
 TDSNNENSVPKDFENVDNSNFAPRTQKQKHQPELAKKPPSRQKEHLQRKLD AQDKRQGSVLGKGPKEVL  
 PPREKATGNSSQKDL SRHSHARKSGGGGSPETKSDQAPKCDISGKEAISAL TRAKSKHCRQEIAETYCR  
 HKLGLLMPEKVARFCPLGKANKNVQWDEDAVEYMPANPVRIAFVLVHGRASRQLQRMFKAIYHKDHFY  
 YIHVDKRSNYLHRQVLQFSRQYDNVVRVTSWRMATIWGGASLLSTYLQSMRDLEMTDWPWDFFINLSAAD  
 YPIRTNDQLVAFLSRYRDMNFKSHGRDNARFIRKQGLDRLFLECDTHMWRLGDRRIPEGIAVDGGSDWF  
 LLNRKFVEYVAFSTDDLVTMVKQFYSYTLLPAESFFHTVLENSPHCDTMVDNNLRITNWNRKLGCKCQYK  
 HIWDWCGCSPNDFKPKQDFHRFQQTARPTFFARKFEIVNQEIIGQLDSYLYGNYPAGTPGLRSYWENVYD  
 EPDGIHTLSDVALTYHSFIRLGLRRAESSLHTDGENSCRYPMGHPASVHLYFLADRFQGLIKHHVTN  
 LAVSKLETLETWMPKKVFKVASPPSDFGRLQFSEVGTWDAKERLFRNFGGLLGPMDEPVMQKWKGP  
 NVTVTVIWVDPVNVIAATYDIL IESTAEFTHYKPLNPLRPGVWTVKILHHWVPAETKFLVAPLTF SN  
 KQPIKPEEALKLHNGPPRSAYMEQSFQSLNPVLSLHINPAQVEQARKNAAFGTALAEAWLDSL VGGTWT A  
 MDICTTGPTACPMQTCSTAWSSFSPDPKSELGAVKPDGRLR

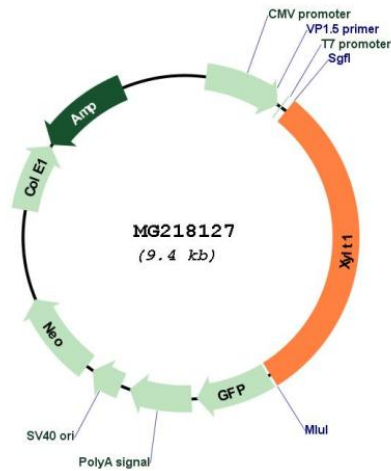
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_175645

**ORF Size:** 2859 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_175645.3](#), [NP\\_783576.2](#)

**RefSeq Size:** 3070 bp

**RefSeq ORF:** 2862 bp

**Locus ID:** 233781

**UniProt ID:** [Q811B1](#)

**Cytogenetics:** 7 F1

**Gene Summary:**

Catalyzes the first step in the biosynthesis of chondroitin sulfate and dermatan sulfate proteoglycans, such as DCN. Transfers D-xylose from UDP-D-xylose to specific serine residues of the core protein. Required for normal maturation of chondrocytes during bone development, normal onset of ossification and normal embryonic and postnatal skeleton development, especially of the long bones.[UniProtKB/Swiss-Prot Function]