

## Product datasheet for **MC223883**

### Myt1l (NM\_001093775) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Myt1l (NM_001093775) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Myt1l
Synonyms:	2900046C06Rik; 2900093J19Rik; C630034G21Rik; mKIAA1106; Nztf1; Pmng1; Png-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC223883 representing NM_001093775 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGTGGACTCTGAGGAGAAGCGCCATCGCACACGGTCCAAAGGGTTTCGAGTTCCTGTGGAGCCAG  
CCATACAAGAGCTGTTCCAGCTGTCCACTCCAGGCTGCGACGGCAGTGGTACGTCAGTGGCAAATATGC  
ACGACACAGAAGTGTATATGGTTGTCCTTGGCTAAAAAAGAAAAACGCAAGATAAACAGCCCCAAGAA  
CCTGCTCCAAGCGAAAACCATTTGCAGTAAAAGCAGATAGTTCCCTCAGTAGACGAATGTTATGAGAGTG  
ATGGTACTGAAGACATGGATGATAAGGAGGAAGATGATGATGAGGAGTTCCTGAAGACAATGATGAGCA  
AGGGGATGATGACGACGAAGATGAGGTGGATCGGGAAGACGAGGAGGAGATCGAGGAGGAAGATGATGAA  
GAAGATGATGATGATGAAGATGGTGACGATGTAGAAGAGGAAGAAGAGGATGATGATGAAGAGGAGGAAG  
AAGAGGAAGAGGAAGAAGAAAATGAAGACCATCAATGAGTTGTAAGTACTCGAATAATGCAGGACACAGACAA  
GGATGATAACAACAATGATGAGTATGATAACTATGATGAAGTGGTGGTAAAGTAAATCTTGGC  
AAAATTGCTGAGGATGCAGCATACCGAGCCAGGACTGAATCAGAGATGAACAGCAATACCTCCAATAGTC  
TGGAGGACGATAGTGACAAAAACGAAAACCTCGGTGCGAAAAGCGAACTGAGTCTAGACTTAGACAGTGA  
TGTTGTTAGAGAAAACAGTGGACTCCCTTAAAGCTGTTAGCACAAGGACATGGTGTGTGCTATCAGAGAAT  
ATCAGTGACAGAAGTTATGCTGAGGGGATGTCACAGCAGGACAGTAGAAAATATGAACATATGTCATGCTAG  
GGAAGCCCATGAACAATGGACTCATGGAGAAGATGGTGGAGGAGAGTGTGAGGAAGTGTGCTAAAGTAG  
TCTAGAGTGCCTGAGGAACCAAGTCTTTGACCTGGCCAGGAAACTCAGCGAGACCAACCCACAGGACAGG  
AGTCAGCCACCCAACATGAGTGTGCGCCAACATGTCGGCAAGAGGACGACTTCCCTGGGAGGACGCCAG  
ACAGGAGCTACTCGGATATGATGAACCTTATGCGGCTGGAGGAGCAGCTCAGTCCAGGTCTAGAACGTT  
CTCCAGCTGTGCCAAGGAGGATGGGTGTCATGAGAGGGATGATGACACCACCTCAGTGAAGTACAGACAGG  
TCTGAGGAAGTGTGACATGACCAAGGGCAACCTGACTCTGCTAGAGAAAGCCATTGCCTTGGAGACAG  
AGAGAGCCAAGGCCATGCGGGAGAAGATGGCCATGGATGCTGGGAGAAGGGATAACCTGAGATCCTATGA  
GGACCAGTCTCCAAGACAGCTGGCTGGGAAGACAGAAAATCCAATCCAGTGACAGCCATGTCAAAAAG



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CCATACTATGGTAAAGATCCCTCAAGAACAGAAAAGAGAGAGCAAGTGTCCAACCCCGGGTGTGATG  
 GAACCGGCCACGTAACCTGGGCTTACCCGCATCACCGCAGTCTGTCTGGATGCCCGCACAAAGATAGGGT  
 CCCTCCAGAAATCTTGCCATGCATGAAAATGTCTCAAGTGTCCCACTCCAGGCTGCACAGGGCGAGGG  
 CATGTGAATAGCAACAGGAACCTCGCACAGAAGCCTCTCTGGATGCCCCATTGCTGCTGCAGAAAACTGG  
 CAAAGGCCAAGAGAAAACACCAGAGCTGTGATGTGTCCAAATCCAACCAGGCCTCAGACCGAGTCTCAG  
 GCCAATGTGCTTTGTCAAACAGCTTGAGATTCTCAGTATGGCTACAGAAAACAATGTTCCACAACCACA  
 CCACGCTCCAACCTGGCCAAGGAGCTTGAGAAATACTCCAAGACTTCGTTTGAGTACAACAGTTACGACA  
 ACCATACTTATGGCAAAAAGGCCATAGCTCCCAAGGTGCAAACCAGGGACATATCCCCCAAAGGATATGA  
 CGATGCCAAGCGGTACTGCAAGAATGCCAGCCCCAGCAGCAGCACCACCAGCAGCTATGCACCTAGCAGC  
 AGCAGCAACCTCAGCTGTGGTGGTGGCAGCAGCGCCAGTAGCACGTGTAGCAAGAGCAGCTTTGACTACA  
 CACATGACATGGAGGCCGCACACATGGCAGCCACAGCCATTCTCAACCTGTCCACACGTTGTCGTGAAAT  
 GCCACAGAACCTGTCCACCAAGCCACAGGACCTGTGTACTGCCCGGAACCCAGACATGGAGGTGGATGAG  
 AATGGCACCTGGACCTGAGCATGAACAAGCAGAGGCCTCGAGACAGCTGCTGCCAGTCTGACACCCC  
 TGGAACCCATGTCTCCGACGAGCAGGCCGTGATGAGCAGCCGATGCTTCCAGCTGAGCGAGGGGGATTG  
 CTGGGACTTGCCGTAGACTACACAAAATGAAGCCTCGGAGGGTAGATGAGGATGAGCCAAAAGAGATT  
 ACCCCAGAAGACTTGGACCCATTCCAGGAGGCTCTGGAAGAAAGACGGTATCCAGGGGAGGTGACCATCC  
 CAAGCCCCAAACCAAGTACCCTCAGTGAAGGAAAGCAAAAAGGACTTAATAACTCTGTCTGGTGGCC  
 CCTGGCGGACAAAAGCATTGCAAGTATGCTGGCCACCAGTTCCTCAAGAGCTCAAGTGCCCCACCCCTGGC  
 TGTGACGGTTCTGGACACATCACTGGCAATTACGCTTCTCATCGAAGCCTTTCTGGGTGCCCGAGAGCAA  
 AGAAGAGTGGCATCCGGATAGCACAGAGCAAAGAGGACAAGGAAGACCAGGAGCCAATCAGGTGTCCGGT  
 ACCTGGCTGTGACGGTCAGGGACACATCACTGGGAAGTATGCATCCCACCGCAGCGCCTCCGGGTGTCCC  
 TTGGCAGCCAAGAGGCAGAAAAGATGGGTACCTTAATGGCTCCCAGTTCCTGGAAGTCGGTCAAGACGG  
 AGGGCATGTCTGCCCTACCCCGGGTGTGATGGGTGAGGACACGTCAGTGGCAGCTTCTCACACACCG  
 CAGCTTGTGAGGATGTCCAAGAGCCACATCAGCAATGAAGAAAGCAAAGCTGTCTGGAGAACAGATGTTG  
 ACTATCAAGCAGCGAGCCAGCAACGGTATAGAAAATGATGAAGAAATCAAGCAGTTAGATGAAGAGATCA  
 AGGAGCTTAATGAGTCCAATTCCCAGATGGAGGCTGACATGATCAAACCTCAGAACTCAGATCACCACAAT  
 GGAGAGCAACCTGAAGACGATTGAGGAGGAGAACAAGTCATTGAACAGCAGAATGAGTCGCTCTTGAC  
 GAGTTGGCCAACCTGAGCCAGTCCCTGATCCACAGCCTCGCCAACATCCAGCTGCCTCACATGGATCCAA  
 TCAATGAACAAAATTTTGATGCTTACGTGACTACTTTGACGAAATGTATACAAATCAAGATCGTTATCA  
 GAGTCCAGAAAATAAAGCCCTACTGAAAATATAAAGCAGGCTGTGAGAGGAATTCAGGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI  
 ACCN: NM\_001093775  
 Insert Size: 3564 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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\\_001093775.1](#), [NP\\_001087244.1](#)

**RefSeq Size:** 7198 bp

**RefSeq ORF:** 3564 bp

**Locus ID:** 17933

**UniProt ID:** [P97500](#)

**Cytogenetics:** 12 11.86 cM

**Gene Summary:**

Transcription factor that plays a key role in neuronal differentiation by specifically repressing expression of non-neuronal genes during neuron differentiation (PubMed:28379941). In contrast to other transcription repressors that inhibit specific lineages, mediates repression of multiple differentiation programs (PubMed:28379941). Also represses expression of negative regulators of neurogenesis, such as members of the Notch signaling pathway, including HES1 (PubMed:28379941). The combination of three transcription factors, ASCL1, POU3F2/BRN2 and MYT1L, is sufficient to reprogram fibroblasts and other somatic cells into induced neuronal (iN) cells in vitro (PubMed:20107439, PubMed:24243019, PubMed:27281220). Directly binds the 5'-AAGTT-3' core motif present on the promoter of target genes and represses transcription by recruiting a multiprotein complex containing SIN3B (PubMed:28379941). The 5'-AAGTT-3' core motif is absent from the promoter of neural genes (PubMed:28379941).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).