

Product datasheet for **MC223854**

Myt1l (NM_001093776) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myt1l (NM_001093776) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Myt1l
Synonyms:	2900046C06Rik; 2900093J19Rik; C630034G21Rik; mKIAA1106; Nztf1; Pmng1; Png-1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC223854 representing NM_001093776 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGTGGACTCTGAGGAGAAGCGCCATCGCACACGGTCCAAAGGGGTTTCGAGTTCCTGTGGAGCCAG
CCATACAAGAGCTGTTCCAGCTGTCCACTCCAGGCTGCGACGGCAGTGGTCACGTCAGTGGCAAATATGC
ACGACACAGAAGTGTATATGGTTGTCCCTTGGCTAAAAAAGAAAAACGCAAGATAAACAGCCCCAAGAA
CCTGCTCCAAGCGAAAACCATTTGCAGTAAAAGCAGATAGTTCCCTCAGTAGACGAATGTTATGAGAGTG
ATGGTACTGAAGACATGGATGATAAGGAGGAAGATGATGATGAGGAGTTCCTGAAGACAATGATGAGCA
AGGGGATGATGACGACGAAGATGAGGTGGATCGGGAAGACGAGGAGGAGATCGAGGAGGAAGATGATGAA
GAAGATGATGATGATGAAGATGGTGACGATGTAGAAGAGGAAGAAGAGGATGATGATGAAGAGGAGGAAG
AAGAGGAAGAGGAAGAAGAAAAATGAAGACCATCAAATGAGTTGTACTCGAATAATGCAGGACACAGACAA
GGATGATAACAACAATGATGAGTATGATAACTATGATGAAGTGGTAGCTAAGTCGCTATTAATCTTGGC
AAAATTGCTGAGGATGCAGCATAACCGAGCCAGGACTGAATCAGAGATGAACAGCAATACCTCAAATAGTC
TGGAGGACGATAGTGACAAAAACGAAAACCTCGGTGCGAAAAGCGAACTGAGTCTAGACTAGACAGTGA
TGTTGTTAGAGAAACAGTGGACTCCCTTAAGCTGTTAGCAAGGACATGGTGTGTGCTATCAGAGAAT
ATCAGTGACAGAAGTTATGCTGAGGGGATGTCACAGCAGGACAGTAGAAAATATGAACTATGTCATGCTAG
GGAAGCCCATGAACAATGGACTCATGGAGAAGATGGTGGAGGAGAGTGTGAGGAAGTGTGCTAAGTAG
TCTAGAGTGCCTGAGGAACCAAGTCTTTGACCTGGCCAGGAACTCAGCGAGACCAACCCACAGGACAGG
AGTCAGCCACCCAACATGAGTGTGCGCCAACATGTCCGGCAAGAGGACGACTTCCCTGGGAGGACGCCAG
ACAGGAGTACTCGGATATGATGAACCTTATGCGGCTGGAGGAGCAGCTCAGTCCAGGTCTAGAAGCTT
CTCCAGCTGTGCAAGGAGGATGGGTGTCATGAGAGGGATGATGACACCCTCAGTGAAGTCTAGACAGG
TCTGAGGAAGTGTGACATGACCAAGGGCAACCTGACTCTGCTAGAGAAAGCCATTGCCTTGGAGACAG
AGAGAGCCAAGGCCATGCGGGAGAAGATGGCCATGGATGCTGGGAGAAGGGATAACCTGAGATCCTATGA
GGACCAGTCTCCAAGACAGCTGGCTGGGGAAGACAGAAAATCAAATCCAGTGACAGCCATGTCAAAAAG
CCATACTATGATCCCTCAAGAACAGAAAAGAGAGAGAGCAAGTGTCCAACCCCGGGTGTGATGGAACCG



GCCACGTAACCTGGGCTTTACCCGCATCACCGCAGTCTGTCTGGATGCCCGCACAAAGATAGGGTCCCTCC
 AGAAATCTTGGCATGCATGAAAATGTTCTCAAGTGTCCCACTCCAGGCTGCACAGGGCGAGGGCATGTG
 AATAGCAACAGGAACTCGCACAGAAGCCTCTCTGGATGCCCAATTGCTGCTGCAGAAAACTGGCAAAGG
 CCCAAGAGAAACACCAGAGCTGTGATGTGTCCAAATCAAACCAGGCCTCAGACCGAGTCTCAGGCCAAT
 GTGCTTTGTCAAACAGCTTGAGATTCTCAGTATGGCTACAGAAACAATGTTCCCAACACACCACCGC
 TCCAACCTGGCCAAGGAGCTTGAGAAATACTCCAAGACTTCGTTTGAGTACAACAGTTACGACAACCATA
 CTTATGGCAAAAAGAGCCATAGCTCCCAAGGTGCAAACCAGGGACATATCCCCAAAGGATATGACGATGC
 CAAGCGGTACTGCAAGAATGCCAGCCCCAGCAGCAGCACCACCAGCAGCTATGCACCTAGCAGCAGCAGC
 AACCTCAGCTGTGGTGGTGGCAGCAGCGCCAGTAGCACGTGTAGCAAGAGCAGCTTTGACTACACACATG
 ACATGGAGGCCGCACACATGGCAGCCACAGCCATTCTCAACTGTCCACACGTTGTGCGTAAATGCCACA
 GAACCTGTCCACCAAGCCACAGGACCTGTGACTGCCCGAAACCCAGACATGGAGGTGGATGAGAATGGC
 ACCCTGGACCTGAGCATGAACAAGCAGAGGCCTCGAGACAGCTGTGCCAGTCTGACACCCCTGGAAC
 CCATGTCTCCGCAGCAGCAGGCCGTGATGAGCAGCCGATGCTTCCAGCTGAGCGAGGGGGATTGCTGGGA
 CTTGCCTGTAGACTACACAAAAATGAAGCCTCGGAGGGTAGATGAGGATGAGCCAAAGAGATTACCCCA
 GAAGACTTGGACCCATTCAGGAGGCTCTGGAAGAAAGACGGTATCCAGGGGAGGTGACCATCCCAAGCC
 CCAAAACCAAGTACCCTCAGTGCAAGGAAAGCAAAAAGGACTTAATAACTCTGTCTGGCTGCCCCCTGGC
 GGACAAAAGCATTGCAAGTATGCTGGCCACCAGTTCCTCAAGAGCTCAAGTGCCCCACCCCTGGCTGTGAC
 GGTCTGGACACATCACTGGCAATTACGCTTCTCATCGAAGCCTTCTGGGTGCCCGAGAGCAAAGAAGA
 GTGGCATCCGGATAGCACAGAGCAAAGAGGACAAGGAAGACCAGGAGCCAATCAGGTGTCCGGTACCTGG
 CTGTGACGGTCAGGGACACATCACTGGGAAGTATGCATCCACCAGCAGCGCTCCGGGTGTCCCTTGGCA
 GCCAAGAGGCAGAAAGATGGGTACCTTAATGGCTCCCAGTTCTCTGGAAGTCGGTCAAGACGGAGGGCA
 TGTCTGCCCTACCCCGGGTGTGATGGTTCAGGACACGTGAGTGGCAGCTTCTCACACCCGCAGCTT
 GTCAGGATGTCCAAGAGCCACATCAGCAATGAAGAAAGCAAAGCTGTCTGGAGAACAGATGTTGACTATC
 AAGCAGCGAGCCAGCAACGGTATAGAAAATGATGAAGAAATCAAGCAGTTAGATGAAGAGATCAAGGAGC
 TTAATGAGTCCAATTCAGATGGAGGCTGACATGATCAAACCTCAGAACTCAGATCACCACAATGGAGAG
 CAACCTGAAGACGATTGAGGAGGAGAACAAGTCATTGAACAGCAGAATGAGTCGCTCTTGCACGAGTTG
 GCCAACCTGAGCCAGTCCCTGATCCACAGCCTCGCCAACATCCAGCTGCCTCACATGGATCCAATCAATG
 AACAAAATTTTGTGCTTACGTGACTACTTTGACGAAATGTATACAAATCAAGATCGTTATCAGAGTCC
 AGAAAATAAAGCCCTACTGGAAAATATAAAGCAGGCTGTGAGAGGAATTCAGGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001093776
- Insert Size:** 3558 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_001093776.1](#), [NP_001087245.1](#)

RefSeq Size: 7104 bp

RefSeq ORF: 3558 bp

Locus ID: 17933

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 (3) differs in the 5' UTR and uses an alternate in-frame splice site in the mid-coding region, compared to variant 1, resulting in a shorter protein (isoform 2). Variants 2, 3, 6 and 7 encode the same isoform (2).