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Product datasheet for MC223853

Myt1l (NM_008666) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myt1l (NM_008666) 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:

>MC223853 representing NM_008666
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACGTGGACTCTGAGGAGAAGCGCCATCGCACACGGTCCAAAGGGGTTCGAGTTCCTGTGGAGCCAG
CCATACAAGAGCTGTTCAGCTGTCCCACTCCAGGCTGCGACGGCAGTGGTCACGTCAGTGGCAAATATGC
ACGACACAGAAGTGTATATGGTTGTCCCTTGGCTAAAAAAAGAAAAACGCAAGATAAACAGCCCCAAGAA
CCTGCTCCCAAGCGAAAACCATTTGCAGTAAAAGCAGATAGTTCCTCAGTAGACGAATGTTATGAGAGTG
ATGGTACTGAAGACATGGATGATAAGGAGGAAGATGATGATGAGGAGTTCTCTGAAGACAATGATGAGCA
AGGGGATGATGACGACGAAGATGAGGTGGATCGGGAAGACGAGGAGGAGATCGAGGAGGAAGATGATGAA
GAAGATGATGATGATGAAGATGGTGACGATGTAGAAGAGGAAGAAGAGGATGATGATGAAGAGGAGGAAG
AAGAGGAAGAGGAAGAAGAAAATGAAGACCATCAAATGAGTTGTACTCGAATAATGCAGGACACAGACAA
GGATGATAACAACAATGATGAGTATGATAACTATGATGAACTGGTAGCTAAGTCGCTATTAAATCTTGGC
AAAATTGCTGAGGATGCAGCATACCGAGCCAGGACTGAATCAGAGATGAACAGCAATACCTCCAATAGTC
TGGAGGACGATAGTGACAAAAACGAAAACCTCGGTCGGAAAAGCGAACTGAGTCTAGACTTAGACAGTGA
TGTTGTTAGAGAAACAGTGGACTCCCTTAAGCTGTTAGCACAAGGACATGGTGTTGTGCTATCAGAGAAT
ATCAGTGACAGAAGTTATGCTGAGGGGATGTCACAGCAGGACAGTAGAAATATGAACTATGTCATGCTAG
GGAAGCCCATGAACAATGGACTCATGGAGAAGATGGTGGAGGAGAGTGATGAGGAAGTGTGTCTAAGTAG
TCTAGAGTGCCTGAGGAACCAGTGCTTTGACCTGGCCAGGAAACTCAGCGAGACCAACCCACAGGACAGG
AGTCAGCCACCCAACATGAGTGTGCGCCAACATGTCCGGCAAGAGGACGACTTCCCTGGGAGGACGCCAG
ACAGGAGCTACTCGGATATGATGAACCTTATGCGGCTGGAGGAGCAGCTCAGTCCCAGGTCTAGAACGTT
CTCCAGCTGTGCCAAGGAGGATGGGTGTCATGAGAGGGATGATGACACCACCTCAGTGAACTCAGACAGG
TCTGAGGAAGTGTTTGACATGACCAAGGGCAACCTGACTCTGCTAGAGAAAGCCATTGCCTTGGAGACAG
AGAGAGCCAAGGCCATGCGGGAGAAGATGGCCATGGATGCTGGGAGAAGGGATAACCTGAGATCCTATGA
GGACCAGTCTCCAAGACAGCTGGCTGGGGAAGACAGAAAATCCAAATCCAGTGACAGCCATGTCAAAAAG
CCATACTATGATCCCTCAAGAACAGAAAAGAGAGAGAGCAAGTGTCCAACCCCCGGGTGTGATGGAACCG

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GCCACGTAACTGGGCTTTACCCGCATCACCGCAGTCTGTCTGGATGCCCGCACAAAGATAGGGTCCCTCC
AGAAATTCTTGCCATGCATGAAAATGTTCTCAAGTGTCCCACTCCAGGCTGCACAGGGCGAGGGCATGTG
AATAGCAACAGGAACTCGCACAGAAGCCTCTCTGGATGCCCCATTGCTGCTGCAGAAAAACTGGCAAAGG
CCCAAGAGAAACACCAGAGCTGTGATGTGTCCAAATCCAACCAGGCCTCAGACCGAGTCCTCAGGCCAAT
GTGCTTTGTCAAACAGCTTGAGATTCCTCAGTATGGCTACAGAAACAATGTTCCCACAACCACACCACGC
TCCAACCTGGCCAAGGAGCTTGAGAAATACTCCAAGACTTCGTTTGAGTACAACAGTTACGACAACCATA
CTTATGGCAAAAGAGCCATAGCTCCCAAGGTGCAAACCAGGGACATATCCCCCAAAGGATATGACGATGC
CAAGCGGTACTGCAAGAATGCCAGCCCCAGCAGCAGCACCACCAGCAGCTATGCACCTAGCAGCAGCAGC
AACCTCAGCTGTGGTGGTGGCAGCAGCGCCAGTAGCACGTGTAGCAAGAGCAGCTTTGACTACACACATG
ACATGGAGGCCGCACACATGGCAGCCACAGCCATTCTCAACCTGTCCACACGTTGTCGTGAAATGCCACA
GAACCTGTCCACCAAGCCACAGGACCTGTGTACTGCCCGGAACCCAGACATGGAGGTGGATGAGAATGGC
ACCCTGGACCTGAGCATGAACAAGCAGAGGCCTCGAGACAGCTGCTGCCCAGTCCTGACACCCCTGGAAC
CCATGTCTCCGCAGCAGCAGGCCGTGATGAGCAGCCGATGCTTCCAGCTGAGCGAGGGGGATTGCTGGGA
CTTGCCTGTAGACTACACCAAAATGAAGCCTCGGAGGGTAGATGAGGATGAGCCCAAAGAGATTACCCCA
GAAGACTTGGACCCATTCCAGGAGGCTCTGGAAGAAAGACGGTATCCAGGGGAGGTGACCATCCCAAGCC
CCAAACCCAAGTACCCTCAGTGCAAGGAAAGCAAAAAGGACTTAATAACTCTGTCTGGCTGCCCCCTGGC
GGACAAAAGCATTCGAAGTATGCTGGCCACCAGTTCCCAAGAGCTCAAGTGCCCCACCCCTGGCTGTGAC
GGTTCTGGACACATCACTGGCAATTACGCTTCTCATCGAAGCCTTTCTGGGTGCCCGAGAGCAAAGAAGA
GTGGCATCCGGATAGCACAGAGCAAAGAGGACAAGGAAGACCAGGAGCCAATCAGGTGTCCGGTACCTGG
CTGTGACGGTCAGGGACACATCACTGGGAAGTATGCATCCCACCGCAGCGCCTCCGGGTGTCCCTTGGCA
GCCAAGAGGCAGAAAGATGGGTACCTTAATGGCTCCCAGTTCTCCTGGAAGTCGGTCAAGACGGAGGGCA
TGTCCTGCCCTACCCCCGGGTGTGATGGGTCAGGACACGTCAGTGGCAGCTTCCTCACACACCGCAGCTT
GTCAGGATGTCCAAGAGCCACATCAGCAATGAAGAAAGCAAAGCTGTCTGGAGAACAGATGTTGACTATC
AAGCAGCGAGCCAGCAACGGTATAGAAAATGATGAAGAAATCAAGCAGTTAGATGAAGAGATCAAGGAGC
TTAATGAGTCCAATTCCCAGATGGAGGCTGACATGATCAAACTCAGAACTCAGATCACCACAATGGAGAG
CAACCTGAAGACGATTGAGGAGGAGAACAAAGTCATTGAACAGCAGAATGAGTCGCTCTTGCACGAGTTG
GCCAACCTGAGCCAGTCCCTGATCCACAGCCTCGCCAACATCCAGCTGCCTCACATGGATCCAATCAATG
AACAAAATTTTGATGCTTACGTGACTACTTTGACGGAAATGTATACAAATCAAGATCGTTATCAGAGTCC
AGAAAATAAAGCCCTACTGGAAAATATAAAGCAGGCTGTGAGAGGAATTCAGGTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_008666

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_008666.3, NP_032692.2

RefSeq Size: 7192 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 (2) 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).