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Product datasheet for MR223825

Myt1l (NM_008666) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myt1l (NM_008666) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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
ORF Nucleotide Sequence:	>MR223825 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) 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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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR223825 protein sequence
Red=Cloning site Green=Tags(s)

MDVDSEEKRHRTRSKGVRVPVEPAIQELFSCPTPGCDGSGHVSGKYARHRSVYGCPLAKKRKTQDKQPQE
PAPKRKPFAVKADSSSVDECYESDGTEDMDDKEEDDDEEFSEDNDEQGDDDDEDEVDREDEEEIEEEDDE
EDDDDEDGDDVEEEEEDDDEEEEEEEEEEENEDHQMSCTRIMQDTDKDDNNNDEYDNYDELVAKSLLNLG
KIAEDAAYRARTESEMNSNTSNSLEDDSDKNENLGRKSELSLDLDSDVVRETVDSLKLLAQGHGVVLSEN
ISDRSYAEGMSQQDSRNMNYVMLGKPMNNGLMEKMVEESDEEVCLSSLECLRNQCFDLARKLSETNPQDR
SQPPNMSVRQHVRQEDDFPGRTPDRSYSDMMNLMRLEEQLSPRSRTFSSCAKEDGCHERDDDTTSVNSDR
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PYYDPSRTEKRESKCPTPGCDGTGHVTGLYPHHRSLSGCPHKDRVPPEILAMHENVLKCPTPGCTGRGHV
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SNLAKELEKYSKTSFEYNSYDNHTYGKRAIAPKVQTRDISPKGYDDAKRYCKNASPSSSTTSSYAPSSSS
NLSCGGGSSASSTCSKSSFDYTHDMEAAHMAATAILNLSTRCREMPQNLSTKPQDLCTARNPDMEVDENG
TLDLSMNKQRPRDSCCPVLTPLEPMSPQQQAVMSSRCFQLSEGDCWDLPVDYTKMKPRRVDEDEPKEITP
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GSGHITGNYASHRSLSGCPRAKKSGIRIAQSKEDKEDQEPIRCPVPGCDGQGHITGKYASHRSASGCPLA
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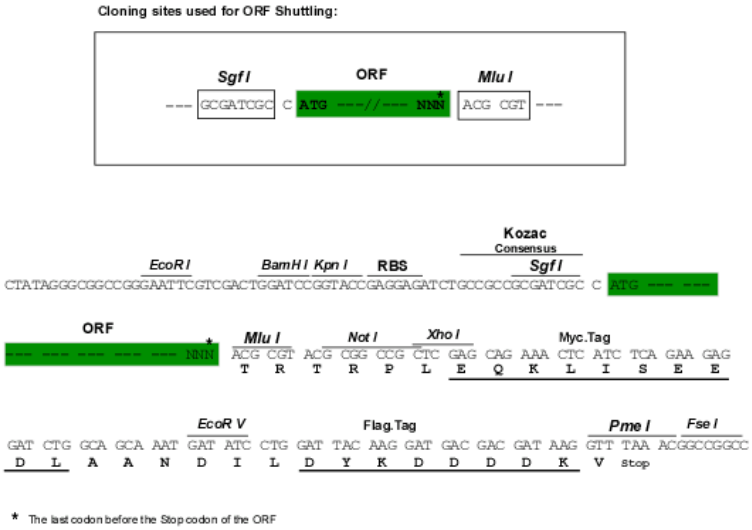
KQRASNGIENDEEIKQLDEEIKELNESNSQMEADMIKLRTQITTMESNLKTIEEENKVIEQQNESLLHEL
ANLSQSLIHSLANIQLPHMDPINEQNFDAYVTTLTEMYTNQDRYQSPENKALLENIKQAVRGIQV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

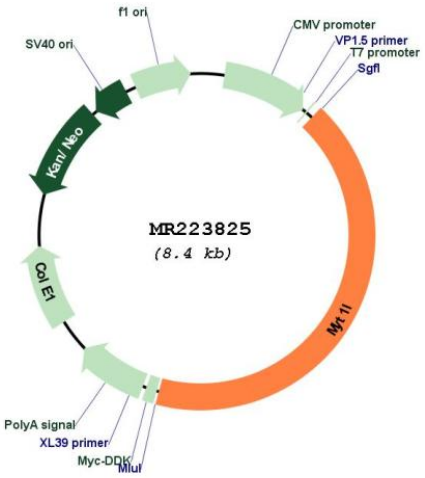
Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_008666
ORF Size:	3555 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_008666.3, NP_032692.2
RefSeq Size:	7192 bp
RefSeq ORF:	3558 bp
Locus ID:	17933
Cytogenetics:	12 11.86 cM
MW:	132.8 kDa

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]