

Product datasheet for **MR211003**

Mastl (NM_025979) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mastl (NM_025979) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mastl
Synonyms:	2700091H24Rik; C88295; GW; GWL; MAST-L; THC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR211003 representing NM_025979
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGTCCGCCTCGCAAGTGAGGAGAATGAAGGAGGTGCGCGGATAGAGGAGTGCCTGAGTAGGATCC
 CGGTACCAAGACCACCCTCCATTGAGGAGTTCACCATAGTGAAGCCATTAGCCGTGGTGCATTCGGGAA
 AGTGTACCTGGGACAGAAAGCGGCAAGTTGTACGCAGTGAAGGTTGTCAAAAAGGCAGACATGATCAAT
 AAAAATATGACTCATCAGGTACAAGCTGAGAGAGATGCCCTGGCACTGAGCAAAAAGCCCTTTTGTGTGC
 ATCTCTATTACTCACTGCAGTCAGCAAGCAACATCTACTTGATAATGGAGTATCTTATTGGTGGAGATGT
 CAAGTCTCTCCTACATATATATGGTTATTTTATGAGAGATGGCTATAAAAATATATTTCTGAAGTAGCA
 TTGGCTTTAGACTACCTGCACAGACATGGAATCATCCATAGGGATTTGAAACCGGACAATATGCTTATTT
 CCAATGAGGGTCAATTAAACTGACAGATTTTGGCCTTTCCAAAGTTACTTTGAATAGAGACATCAATAT
 GATGGATATTCTACAACACCATCAATGTCTAAACCTAAGCAAGATTATCAAGAACTCCAGGACAAGTC
 TTATCTCTCATCAGTTCTTTGGGATTTTTCACACCAGTTGGAGAAAAAGATCAAGACTCTGCAAACATGT
 TTTTCAGCCCTAAGTCTGCTGCACAACCTTCTCGAGGATTCATTTGTCCTATGTCTGTAGATCAGAAAGGA
 GCCGACTTCTTATTCGAGCAAACTGCTAAAATCATGTTTTGAAACCCCTTCATCCAATCCAGAAATACCT
 GTGAAATGTCTGACTTCTAATCTACTCCAGTGTAGGAAAAGACTGGGTACCTCAAGTACTAGTAGCCAGT
 CTCATACCTTCGTATCCAGTGTGGAGTCAGAAATGCCACAGCAATCCCAATGGGAAAAGAGACTGCCAGAG
 TACCGAATCATCAGGCTGTGCAATGAGCTGGAATGCAGTTGAAATGCTGTATGCAAAATCTACAAGTGCC
 ATCAAGACAAAAACAGAAGTGGAAATAGCACTTCTCCATTATGACAGCAGTGCCATTCCTGCTGCTG
 GAAGCAACCGGTGACCCCTCCCTAGAAAATGCTTCAGGGAAATCTCTTGGGAAGCAAGGGACCCAGATA
 TGAGAACATGACCATTGACAAGGGACAGTCTGGTTTCTGTCCAGTCCAGTCCAGAGGCTGTAAATCTAGT
 GCTACATCTGAAGAACACCTTGGTAAAAGAAATATAAAAAGAAATTTCCACTTGGTTGACTCCAGTCCCT
 GTCAGGAAATTATGCAAAGTAAAAAACTGTACAGAGTATGAGGCCAATAAGGAAAAGGCAAGGCTGCCG
 TGCAAAATCAAAGTACAGGCTTGACAACCGAAGTCCAGAACCTGAAGCTATCAGGGTGTGAAAGTCAGCAA
 CTTGACTATGCCAATAAGGAGAACATTGTCACCTATTTAACTGACAGACAAACCCAGAAAACTGCATA
 TACCAACGATAGCAAAGAACCTTATGTCTGAAGTATGAGACTGTGAGCTGAGCAGTAAAAGGACTG
 CCTCAGTCTAATCTGTATGTTCTGATGAGGATAGAGCTTTAAACTACCTGTGTGGATTCCGATTCA
 TCTTTTCTGGAGTGTCTATGATGGAGAGTTCAGTGGAAATTCAGGCCTTGAACAGATAAAAGCATCA
 GAGACTACTCTTTTGAAGAACCAAAACACTGAAGATCTATTTGTGTACCAAAATGCCAAGAAAATTCCTT
 GCCACAAGATGACTGCCATGCTTGTATCCAAGACAGTAGCCAAGTGTGAGCTCATCCCTCAAAGGCGCCC
 AAAGCATTGACCTCTAAAATCAACGTCGTGGCTTTTCAAGTTTTAACAGTCATATTAACGCATCTACTA
 ATTCGGAACCATCCAAAATCAGCATAAATCTTTAGATGCTATGGACATTTCTGTGATTACAGTGGTTC
 ATACCCCATGGCTGTGAGCCCTACTGAGAAAGGAAGGCACTACACGTCACATCAGACTCCAAATCAGGTC
 AAGTTGGGAACATCATACAGAAGTCCAAAGAGTGTGAGAAGAGGGGACAGCCAGTAGATGACGGGCGAA
 TTCTAGGGACTCCAGATTACCTGGCACCTGAGCTCTTACTGGGTACAGCCCATGGTCTGCAGTAGACTG
 GTGGGCTCTTGGAGTTTGTCTGGAATTTCTGACAGGAATCCCTTTTCAATGATGAAACACCACAA
 CAAGTATCCAGAATATTTTAAAAAGAGATATCCCATGGCCAGAAGGCGAAGAAAAGCTATCTGATAATG
 CTCAAAGTGAATGGACATGCTTTTAAACATTGATGATTCAAAGAGAGCTGGAATGAGAGAACTAAAACA
 GCATCCTCTCTTCAAGTGGACTGGGAAAATCTGCAGCATCAGACTATGCCTTTTCGTACCCCAACCA
 GACGACGAAACAGATACATCCTATTTTGAAGCCAGAAATAATGCTCAACATCTGACCATATCTGGTTTA
 GTCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211003 representing NM_025979
 Red=Cloning site Green=Tags(s)

MESASASEENEGGAAIEECVSRIPVPRPPSIEEFTIVKPISRGAFGKVYLGQKGGKLYAVKVVKADMIN
 KNMTHQVQAERDALALSKSPFVVHLYSLQASNIYLIMEYLIGGDVKSLLHIYGYFDEEMAIKYISEVA
 LALDYLHRHGIHRDLKPDNMLISNEGHIKLTDFGLSKVTLNRDINMMDILTPSPMSKPKQDYSRTPGQV
 LSLISSLGGFTFPVGEKDQDSANMF SAKSAAQLSRGFICPMSVDQKEPTSYSKLLKSCFETLSSNPEIP
 VKCLTSNLLQCRKRLGTSSTSSQSHTFVSSVESECHSNPKWERDCQSTESSGCAMSWNAVEMLYAKSTSA
 IKTKTELELALSPIHDSSAIPAAGSNQVTLPRKCFREISWEARDPDNENMTIDKGQSGFCQSSQRSVNSS
 ATSEEHLGKRNKRNHFLVDSSPCQEIMQSKKNCTEYEANKERQGCRANQSTGLTTEVQNLKLSGCESQQ
 LDYANKENIVTYLTDRQTPEKLHIPTIAKNLMSELDEDCELSKKDCLSSNSVCSDEDRALKTTCVDSDS
 SFPGVSMMESSLEIQALEPDKSIRDYSFEEPNTEDL FVLPKCQENSLPQDDCHACIQDSSQVSAHPSKAP
 KALTSKINVVAFRSFNHINASTNSEPSKISITSLDAMDISCDYSGSYPMVSPTEKGRHYTSHQTPNQV
 KLGTSYRTPKSVRRGAAPVDDGRILGTPDYLAPELLLGT AHGPAVDWWALGVCLFEFLTGIPIPFNDETPQ
 QVFQNILKRDIPWPEGEEKLSDNAQSAMDMLLTIDDSKRAGMRELKQHPLFSEVDWENLQHQTMPFVPQP
 DDETDTSYFEARNAQHLTISGFSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9009_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

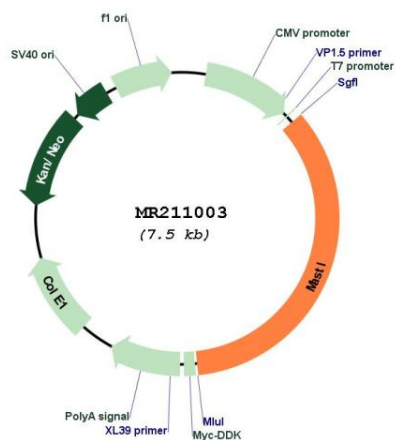
Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:	NM_025979
ORF Size:	2595 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:	<ol style="list-style-type: none">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_025979.4 , NP_080255.3
RefSeq Size:	4652 bp
RefSeq ORF:	2598 bp
Locus ID:	67121
UniProt ID:	Q8COP0
Cytogenetics:	2 A3
MW:	96.4 kDa
Gene Summary:	Serine/threonine kinase that plays a key role in M phase by acting as a regulator of mitosis entry and maintenance. Acts by promoting the inactivation of protein phosphatase 2A (PP2A) during M phase: does not directly inhibit PP2A but acts by mediating phosphorylation and subsequent activation of ARPP19 and ENSA at 'Ser-62' and 'Ser-67', respectively. ARPP19 and ENSA are phosphatase inhibitors that specifically inhibit the PPP2R2D (PR55-delta) subunit of PP2A. Inactivation of PP2A during M phase is essential to keep cyclin-B1-CDK1 activity high. Following DNA damage, it is also involved in checkpoint recovery by being inhibited (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211003