

Product datasheet for **MC220025**

Pot1a (NM_133931) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pot1a (NM_133931) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pot1a
Synonyms:	1500031H18Rik; AI851169; Pot1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC220025 representing NM_133931
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTTTGGTTTCAACAGCTCCCTATACATATACACCCCTGAATCTACTCAAGGAAGGTACAATTGCCA
 ATGTCTATGGTGTGTGAAATTCCTTAAGCCTCCGTATGTTAGCAAAGGAACTGATTATTGCTCAGTTGT
 AACAAATTGTGGACCAGACAAATGTGAAGTTAACCTGTATGCTCTTTAGTGAAACTATGAAGCCCTCCCC
 ATCATTATAAAGTTGGAGACATTGTTCCGCTTCCACAGGCTGAAGATCCAAGTGTATAAAAAATGAGCTTC
 AGGGAATCAACTGCTCTGGCTTCGCTCTTTGACATTTGAAGGGACTGTAGGGATGCCTGTCACAGCAGC
 CACTTCCAGCAAAGTTTTAGTTCCTCCTCAGGACCAAAAAATGGTAGAAGCTTTGCGGGTTGGGCA
 TCCAAGCACATCTCGGCTCTTCAACTTAGTGCAGCTGTGCGATGCGCAGCCATGCAGTATTACGACC
 TGACCTGTGAGCTCTGGTAAAGCACAAAGTGGATTCCACAGCATTCTTCTAAAGGTATGGGATGGAAC
 CCAGACTGTGCTCCCTCCTGGAGAGTCCACACAAGATCTAACTTTTGAAGGTGACTTGAGTCACATC
 GAACGGCTACAGAGTCTGGTGGTAGACATTCTAGTCTACGATAAACCACGTTCAAGTGGCGAGATCCATCG
 AGGTTGGATGCTTTCTAAGACTCTATAGCCTCCATACAAAACCTCAGCCTGGAAATTCAGAAACCAGCAG
 TTCTGAATCATTAAAGGCTGGAGTTCATCTCCACGGAGGGACAGTTATGGTCGGGGCATTAGGGTTTTG
 CCAGATACAAGCCCTTGTGTGGATCAGCTGAAAAAAGCTTTAGAAGGTGCAAATTTGCCAGTCACTGAGA
 CCTCAACTGGTATCTGTCAATCAGAAAAATGGGGACAGCTCTGCACTATCAAACCTCAGGATCAGGTGCAGT
 ATCACCTATGAAGAAGAACGATGTCAACAAGTCTCTGCTACAATACTTACCAATCACCACATTTAGAG
 AAAACACCAGTGTGCCATCTTGACGCAAAAAGCTCCTCAACAATATCGAGTCCGCGCCAACTGAGAT
 CCTATTTGCCAGGAGACTTTCCAGTCTGTTAAACTTCTGTCTAAATGTCAATCAGTACAAGAAGT
 TCCACATGGGGACAGTTTGGATAAAAATTTGCAAGATGCTGCAACTGAAGCTCCAGACATCAAGTGAAA
 GCGACATCATTGTATTATTCAAAAAGTCTGGACCACTGAAGACCAGGGCGGACGGCAGGTCTGTTTATT
 TTGTGAAAAATAATGGCATTCTCCCTGCTTCAAGTGAATGTCTAATTTTGTAGAGAAGGAGGAAGGCTCTG
 CGAAGTCTCTAACTGTCCAGCAAGTCCACAGTGTGATGCCTGTGCGGTCCGGCCCTGAGAGCCTGGAG
 CTCCTTACCCTTTAGCCCGTTCCTCATAAGGGAAAGGTGCATCACTATGGATGTAACAGTGTCTCAA
 GCTTGAAACCTATACAAAATCTAACTCCCGTTTTATAAAGGACCGTGGACTCCTTCTCTGTGGCAGA
 AGCCCTGGGCGTTGTGCCGCTGCAGTATGTGTTTGTATGGTTTTCACTCTGGATGACGGGACAGGGGTG
 TTGGAAGCTTACCTCAAGGATTCTGAACACTTTTTCAAGATCCCAGCATCTGAAGTCTCTACTGATGACG
 ACCTTCAGAGAAGTCTAGAAACGATCATGGATATGATATGTCCCCAGGAATAAAAAGTTGATGCATACCC
 ATGGCTAGAGTGCCTCCTCAAGTCTACAATGTACCATCGGAACAGAGCGACGAATTTGCTACCAGATT
 TTTGATACTACAGTTGCAGAAAATGTTGT**AG**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja1927_e03.zip

Restriction Sites: SgfI-MluI

ACCN: NM_133931

Insert Size: 1923 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 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_133931.4](#), [NP_598692.1](#)

RefSeq Size: 3153 bp

RefSeq ORF: 1923 bp

Locus ID: 101185

UniProt ID: [Q91WC1](#)

Cytogenetics: 6 A3.1

Gene Summary:

Component of the telomerase ribonucleoprotein (RNP) complex that is essential for the replication of chromosome termini. Is a component of the double-stranded telomeric DNA-binding TRF1 complex which is involved in the regulation of telomere length by cis-inhibition of telomerase. Also acts as a single-stranded telomeric DNA-binding protein and thus may act as a downstream effector of the TRF1 complex and may transduce information about telomere maintenance and/or length to the telomere terminus. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded TTAGGG repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance and chromosome ends are inappropriately processed by DNA repair pathways. Binds to two or more telomeric single-stranded 5'-TTAGGG-3' repeats (G-strand) and with high specificity to a minimal telomeric single-stranded 5'-TAGGGTTAG-3' sequence. Binds telomeric single-stranded sequences internally or at proximity of a 3'-end. Its activity is TERT dependent but it does not increase TERT activity (By similarity).[UniProtKB/Swiss-Prot Function]