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Product datasheet for MC205542

Tmem64 (NM_181401) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tmem64 (NM_181401) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Tmem64
Synonyms:	9630015D15Rik; AI790744; AV300874
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>BC030341
CCACGCGTCCGCGGCCGTTCCCTCTCCGCGAGAGGACGCAGGGAGCCGAGGCCTGGCGTGCGGGGTGCCA
TGGAAGGCCGCAGGCGGGGGGACGCGGCGGGAGTGGAGACACTGGCCGGCTGAGGCCGAGGCATGCGGAG
CCCCGGTGGGAGCCTGCCCCACACGCTGCCCCGGGCCTTGCAGCACGCCGGTCGGACGGGCGTCGTGGAG
CAGCCGGGCCGCTGGGCACCGGAGCGGACAGCGGGAGGGGACCGCTCGGAGGACCGCCTTCCCCGCGGGG
GCGGGGCCAGCGCGGCGGCGGCTGCTGCTGCGGCGGCGGCCTCGGGCGCCCTGCTCGGCGCCTATCTGGA
GCGCCACGGTCTGCCCGCGGCCTCGGACTTGCCGGCGCCGGCCGGGGCGTTGGCAGGCGGCCCCGGGAGC
GGCGGCGGCGTGGTGGTCGGGGTGGCCGAGGTGAGAAACTGGCGCTGCTGCTGCCTCGGCAGCACCTGTT
GGTGCCGGAGCCTCGTGCTGGTGTGCGTGCTGGCCGCCCTGTGCTTCGCTTCCCTGGCCCTGGTCCGCCG
CTACCTGCAGCACCTCCTGCTCTGGGTGGAGAGCCTCGACTCGCTGCTCGGTGTCCTGCTCTTCGTCGTG
GGCTTCATCGTGGTCTCCTTCCCCTGCGGTTGGGGCTACATCGTGCTTAATGTGGCGGCCGGCTACCTGT
ACGGCTTCGTGCTAGGCATGGGGCTCATGGTGGTGGGCGTCCTCATTGGCACCTTTATCGCTCATGTGGT
CTGCAAGCGGCTACTCACCGCCTGGGTGGCTGCCAGGATCCAGAACAGCGACAAGCTGAGCGCCGTTATC
CGCGTCGTGGAGGGAGGAAGCGGCCTGAAGGTGGTGGCGCTGGCCCGGCTGACTCCCATACCTTTTGGGC
TTCAGAATGCAGTGTTTTCGATTACTGACGTCCCCTTGCCCAGCTACCTGATGGCGTCTTCAGCTGGGCT
GCTACCCACTCAGCTGCTGAATTCTTACTTGGGGACCACACTACGGACTATGGAAGATGTCATCGCAGAA
CAAAGTCTTAGTGGCTATTTTGTCTTTTGTTTACAGATTGTTATAAGCATTGGCCTCATGTTTTATGTAG
TCCATCGCGCTCAAGTGGAATTGAATGCAGCTATTGTAGCTTGTGAGATGGAACTGAAAACCTCTCTGGT
TAAAGGCAATCAATTGGATCCCAGTGGCTCTTCCTTCTACAACAAGAGGACCCTCACGTTTTCTGGAGGT
GGAATCAATATTGTATGATTCTTACAAACTGTGATTGTTGAGAGCCTAGCGTGCTGTCCAGGCCTAGCAG
TCACTTACCTGATGGCAGAGACAAGTGCTGTTGTATTATGGCACAAACAAAACTGACTAGTTTTTAAATT
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CCCCCCCCTTGTTATACCTGTAATGGCCTATAGGTGTGCACTTTAGTGTTTTTGAATTATTTTATTGCTG
GGACTTATGAACAGAAAAATAACCCAAATATTTTCTTTCTGTTTAGTATCTTTATTTATAAAGCCCATAA
ATAGTTGTGTGCATCTGTCTTTAAGGATGAGTGAAAGTATAGAGTTCGCAATGGCTCTTGTTGTATGCTC
TTTGCTTAGGCATTCTCTCCAGAAGGGTGAACTGTTTTGTTTAATGTTCACTTGCTTGTTTCAAGCAGAA
AAGCTCTGCTTTGTTTTCCTTGCTTGTAAGGAAATAGCTGTATTTCGGTTGACTGTATGTTATCCGGCAT
TATGTCACTGTGGTCATTTACACCTCTCGGTACAAGTGTAAACCCTACATTGTGGGACTGAAGTGCTCTT
AAGACCCCTTTTATTTTCACTGTGTAAGATGCAAAGTGAAAGGGACATTATTTAGCAGGTGGCTCACAAG
TCGAGCCCGCATTCTTATTCGATTATATTGGTTTCTCCCATTAGACCTCATACAAGGGCTGTCCGATAGC
AACTCTTACCAAACCATTTCCCCCTTTTATATTAATAATTAGGCTTTGAAATAAACTTATTGTTCCTATA
AAATGGTGGGCTTACCATCTCTGACGTCATTCAGGTGGCCTTGTTTAGTCAAAACGCCTTGTTAAAAAGA
AACGAGCTTTAAAATCATGTTTATAGTTTCAGTTAAAAAATATATATATGTCCCCATAGCTTTCAGCTTT
AAAACTATAAACATTAACAAAAATCCCACATTCGTGCTGTCTGCTGCGTTATTGCTGTTTTGTTTGGGGC
TTTGGTGTTCCTTTTCCCTGACAAGACTCAGGAATTCTGAAATGTGAAATTGTCTCAATCCTTTATCTTG
TAGCATGTGTGTTTGCTAACAGCACTTAGGACTTAGCATACAATAATCCAACATGATTCGTATGGCGTGC
ACTCATTTATCAGCTTTATTTTTAAAATAGTTTAATTGCAAACTTAATGATGAGTTAATTTTGTTGCAAA
TAGATTGTAGTTGATACGGTAACGTTTTCTGTTAAGGACTTCACTTTTCTATGACTGTTCCAACCTATTA
GAGCTCTCTCCGCTGCCTTTTGCTGGCAGTAAAACCTTTGCCCTGGGTACTGCTGACATCCAGAGAAATC
CCGCGCAAGCAGATTTTTCTAGTCTTAACCCCAGAGAAGAGTTTGATTGTGTTCACACACGAGGTTTTTG
CCCAGTTCAGGTGGCTTTCCTTCCCCTGCTGATGCGTAAATCCCTCTGCGTCTGAGTAGCAGTAGAAGAC
CAGAGTAACTGGGACGAAAGGCACCTGGTCTACAGTGCATGCCTGGCCTCCAGACCTTTGTTATCGGTAG
AAAAACAACTATACATACCGAGTCCTTACTGTCTGTTTAGTTAAGTTTCAGTTAGTTTAACCATCCCAAT
AAAAGAAATATTTGATTTATTCTTTTTAGTACAACTTGGCAACATTTTTCTTGTGTTTCTCATTGGCTAT
TTTTTGTTAAAGGAATCTTTATTTGAGATCATTATTTTCATGCTTGCTTTACAATTCATGTATTTTGAAG
TGCATTATATTTACTTAGCATTTGTAACTTGAACGACTTCACCAAATGAATACCTTTTGGTAATTTGTAA
TAACTTCTTCCAAATGTTAACACTTTCCCTGGTAATTGTATTACATATGTAAAGACAAAAGAAATACTTT
TCTGTATTCTGCCAATCATAATTTTATATAATAAATCATCAACTTTTATAATAGTATGGATTGACAATTT
CTAAAGTAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN:	NM_181401
Insert Size:	1146 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:	BC030341, AAH30341
RefSeq Size:	3314 bp
RefSeq ORF:	1146 bp
Locus ID:	100201
UniProt ID:	Q3U145
Cytogenetics:	4 A2
Gene Summary:	Positively regulates TNFSF11-induced osteoclast differentiation. Acts as a regulator of TNFSF11-mediated Ca(2+) signaling pathways via its interaction with SERCA2 which is critical for the TNFSF11-induced CREB1 activation and mitochondrial ROS generation necessary for proper osteoclast generation. Association between TMEM64 and SERCA2 in the ER leads to cytosolic Ca (2+) spiking for activation of NFATC1 and production of mitochondrial ROS, thereby triggering Ca (2+) signaling cascades that promote osteoclast differentiation and activation (PubMed:23395171). Negatively regulates osteoblast differentiation and positively regulates adipocyte differentiation via modulation of the canonical Wnt signaling pathway. Mediates the switch in lineage commitment to osteogenesis rather than to adipogenesis in mesenchymal stem cells by negatively regulating the expression, activity and nuclear localization of CTNNB1 (PubMed:25979161).[UniProtKB/Swiss-Prot Function]