

Product datasheet for **MC213184**

Tsku (NM_001168539) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Tsku (NM_001168539) Mouse Untagged Clone
Tag: Tag Free
Symbol: Tsku
Synonyms: 9530051K01Rik; E2ig4; Lrrc54; Tsk
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC213184 representing NM_001168539
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCTGTGCTCTCTGTTCTGCTGCTGCTGGCCGTGGGCAGAGTGCAGACGACTCGGCCGTGTTCCCTG
GCTGCCAGTGTGAAGAAGAGACATTCGGCTCTTTGACAGTTTCAGCCTGATCCGTGTGGACTGCAGCAG
CCTGGGCCCCACATTGTGCTGTGCCATCCCTTTGGATACAGCCACCTGGACCTGTCTCCAACCGG
CTAGAAAACCGTGAATGAGTCAGTCTTGGCAGGGCCAGGCTATACCACACTGGCTGGCCTGGATCTCAGTT
ACAACCTGCTCACCAGCATCATGCCCTCTGCCTTCTCCCGACTGCGCTACCTGGAGTCACTTGACCTCAG
CCACAATGGCCTGGCAGCCCTGCCGGCAGAGATTTTACCAGCTCCCCCTTGAGTGACATCAATCTGAGC
CATAACCGACTACGAGAGGTCTCGATATCTGCCTTACCACCCACAGCCAGGGCCGGCACTGCACGTGG
ACCTATCCCAATCTTATCCATCGCCTGCTTCCCCATCCAGCCCGGGCCAGCCTGCCTGCACCTACCAT
TCAGAGCCTGAACCTGTCTGGAACCGATTCCGAGCTGTGCCGATCTCCGAGACCTACCCTGCCTTAC
CTGAGCCTGGATGGAAACCCTCTGGCTACCATCAACCCAGATGCCTTCATGGGGCTGGCAGGCCTCACCC
ACCTGTCACTGGCCAGCCTGCAGGGCATCCTCCATCTACCACCCAGGCTTCCGGGAGCTCCAGGCCT
TCAGGTCTGGACTTGTGAGCAACCCCAAGCTCAAGTGGGCAGGAGCTGAGGTGTTTTAGGCCTGGGT
TTGCTGCAGGAACTAGACCTGTGAGGCTCCAGCTTGGTGGCCCTGCCTGAGATGTGCTGCATCACCTCC
CTGCTTTACAAAGTGTGACGCTAGGCCAGGATGTGACAGTCCCGCCGCTGGTGGGGAGGGCCCTACCA
CCGGCAGCCTGGCTCCAGCCCTAAGGTAGTCTACTGTGGAGACCCAGGAATCTGCTGCCAGGGGC
CCAGACATTTTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001168539



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Insert Size:	1065 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:	<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:	<u>NM_001168539.1, NP_001162011.1</u>
RefSeq Size:	2514 bp
RefSeq ORF:	1065 bp
Locus ID:	244152
UniProt ID:	<u>Q8CBR6</u>
Cytogenetics:	7 E1

Gene Summary:

Contributes to various developmental events and other processes such as wound healing and cholesterol homeostasis through its interactions with multiple signaling pathways (PubMed:21856951, PubMed:22995554, PubMed:25159578, PubMed:31391339). Wnt signaling inhibitor which competes with WNT2B for binding to Wnt receptor FZD4 and represses WNT2B-dependent development of the peripheral eye (PubMed:21856951). Plays a role in regulating the hair cycle by controlling TGFB1 signaling (PubMed:22995554). Required for the development of the anterior commissure in the brain by inhibiting neurite outgrowth (PubMed:21055390, PubMed:23206892). Essential for terminal differentiation of hippocampal neural stem cells (PubMed:31983064). Plays a role in regulating bone elongation and bone mass by modulating growth plate chondrocyte function and overall body size (PubMed:30271858). Required for development of the inner ear through its involvement in stereocilia formation in inner hair cells (PubMed:32127020). Facilitates wound healing by inhibiting secretion of TGFB1 from macrophages which prevents myofibroblast differentiation, maintaining inflammatory cell quiescence (PubMed:25159578). Plays a role in cholesterol homeostasis by reducing circulating high-density lipoprotein cholesterol, lowering cholesterol efflux capacity and decreasing cholesterol-to-bile acid conversion in the liver (PubMed:31391339). In one study, shown to negatively regulate sympathetic innervation in brown fat, leading to reduced energy expenditure (PubMed:31535079). In another study, shown not to affect brown fat thermogenic capacity, body weight gain or glucose homeostasis (PubMed:31767170).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (4) differs in the 5' UTR compared to variant 1. All four variants encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.