

Product datasheet for **SC323739**

Tsukushin (TSKU) (NM_015516) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tsukushin (TSKU) (NM_015516) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tsukushin
Synonyms:	E2IG4; LRRC54; TSK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_015516.3

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CCGGGGTGAGCGTGCCGAGGCGGCTGTGGCGCAGGCTTCCAGCCCCACCATGCCGTGGC
CCCTGCTGCTGCTGCTGGCCGTGAGTGGGGCCAGACAACCCGGCCATGCTTCCCGGGT
GCCAATGCGAGGTGGAGACCTTCGGCCTTTTCGACAGCTTCAGCTGACTCGGGTGGATT
GTAGCGGCCTGGGCCCCACATCATGCCGTGCCATCCCTCTGGACACAGCCCACTTGG
ACCTGTCTCCAACCGGCTGGAGATGGTGAATGAGTCGGTGTGGCGGGGCCGGGCTACA
CGAGCTTGGCTGGCCTGGATCTCAGCCACAACCTGCTCACCAGCATCTCACCACCTGCCT
TCTCCCGCCTTCGCTACCTGGAGTCGCTTGACCTCAGCCACAATGGCCTGACAGCCCTGC
CAGCCGAGAGCTTCACCAGCTCACCCTGAGCGACGTGAACCTTAGCCACAACCACTCC
GGGAGGTCTCAGTGTCTGCCCTCACGACGACAGTCAGGGCCGGGCACTACACGTGGACC
TCTCCACAACCTCATTACCGCCTCGTGCCCAACCCACGAGGGCCGGCCTGCCTGCGC
CCACCATTGAGAGCTGAACCTGGCCTGGAACCGGCTCCATGCCGTGCCAACCTCCGAG
ACTTGCCCTGCGCTACCTGAGCCTGGATGGGAACCTCTAGCTGTCATTGGTCCGGGTG
CCTTCGCGGGGCTGGGAGGCCTTACACACCTGTCTCTGGCCAGCCTGCAGAGGCTCCCTG
AGCTGGCGCCCACTGGCTTCCGTGAGCTACCGGCCTGCAGGCTCTGGACCTGTGCGGCA
ACCCCAAGCTTAACTGGGAGGAGCTGAGGTGTTTTAGGCCTGAGCTCCCTGCAGGAGC
TGGACCTTTCGGGCACCAACCTGGTGCCCTGCCTGAGGCGCTGCTCCTCCACCTCCCGG
CACTGCAGAGCGTCAGCGTGGGCCAGGATGTGCGGTGCCGGCGCCTGGTGCGGGAGGGCA
CCTACCCCGGAGGCCTGGCTCCAGCCCAAGGTGGCCCTGCACTGCGTAGACACCCGGG
ATTCTGCTGCCAGGGGCCCCACCATCTTGACAAATGGTGTGGCCAGGGCCACATAAC
AGACTGCTGTCTGGGCTGCCTCAGGTCCCGAGTAACCTATGTTCAATGTGCCAACCA
GTGGGGAGCCCGCAGGCCTATGTGGCAGCGTACCACAGGAGTTGTGGGCTAGGAGAGG
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CCAAACCATGAGCAGAGGAGCTTCGATGCCAAACAGACTCGGGTCCCTCCTGCTTCCC
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TTGAGAAGGAAAAAGGCTAATCTAAGTTCCTGCGGGCAGTGGCATGACTGGAGCACAGCC
TCCTGCCTCCCAGCCCGACCAATGCACTTTCTTGCTCCTCTAATAAGCCCCACCTC
CCGCCTGGGCTCCCCTTGCTGCCCTTGCTGTTCCCATAGCACAGGAGTAGCAGCAG
CAGGACAGGCAAGAGCCTCACAAGTGGGACTCTGGGCCTCTGACCAGCTGTGCGGCATGG
GCTAAGTCACTCTGCCCTTCGGAGCCTCTGGAAGCTTAGGGCACATTGGTTCCAGCCTAG
CCAGTTTCTCACCTGGGTTGGGGTCCCCAGCATCCAGACTGGAACCTACCCATTTTC
CCCTGAGCATCTCTAGATGCTGCCCAAGGAGTTGCTGCAGTTCTGGAGCCTCATCTGG
CTGGGATCTCCAAGGGGCTCCTGGATTGAGTCCCACTGGCCCTGAGCACGACAGCCCT
TCTTACCCTCCCAGGAATGCCGTGAAAGGAGACAAGGTCTGCCGACCCATGTCTATGCT
CTACCCCAAGGTAGCATCTCAGCTTCCGAACCTGGGCTGTTTCCTTAGTCTTCAATTT
ATAAAAGTTGTTGCCTTTTAAACGGAGTGTCACTTTCAACCGGCCCTCCCTACCCCTGCT
GGCCGGGGATGGAGACATGTCAATTTGTAAGAGCAGAAAAAGGTTGCATTTGTTCACTTTT
GTAATATTGCTCTGGCCTGTGTTGGGGTGTGGGGGAAGCTGGGCATCAGTGGCCACAT
GGGCATCAGGGGCTGGCCCCACAGAGACCCACAGGGCAGTGAGCTCTGTCTTCCCCAC
CTGCCTAGCCCATCATCTATCTAACCGGTCCTTGATTTAATAAACTATAAAAAAGTTCT
TTGCTTAAAAAAAAAAAAAAAAA

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Restriction Sites: ECoRI-NOT

ACCN: NM_015516

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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<u>NM_015516.3</u> , <u>NP_056331.2</u>
RefSeq Size:	2725 bp
RefSeq ORF:	1062 bp
Locus ID:	25987
UniProt ID:	<u>Q8WUA8</u>
Cytogenetics:	11q13.5
Domains:	LRR
Protein Families:	Secreted Protein

Gene Summary:

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

Transcript Variant: This variant (1) differs in the 5' UTR and coding sequence compared to variant 3. The resulting isoform (b) is shorter at the N-terminus compared to isoform a. Variants 1, 2, 4, and 5 all encode isoform b.