

Product datasheet for **SC100422**

ISCU (NM_014301) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ISCU (NM_014301) Human Untagged Clone
Tag:	Tag Free
Symbol:	ISCU
Synonyms:	2310020H20Rik; HML; hnifU; ISU2; NIFU; NIFUN
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC100422 sequence for NM_014301 edited (data generated by NextGen Sequencing) ATGGTTCTCATTGACATGAGTGTAGACCTTTCTACTCAGGTTGTTGATCATTATGAAAAT CCTAGAAACGTGGGTCCCTTGACAAGACATCTAAAAATGTTGGAAGTGGACTGGTGGGG GCTCCAGCATGTGGTGACGTAATGAAATTACAGATTCAAGTGGATGAAAAGGGGAAGATT GTGGATNNAGGTTTAAACATTTGGCTGTGGTTCGCAATTGCCTCCAGCTCATTAGCC ACTGAATGGGTGAAAGGAAAGACGGTGGAGGAAGCCTTGACTATCAAAAACACAGATATC GCCAAGGAGCTCTGCCTTCCTCCCGTGAAACTGCACTGCTCCATGCTGGCTGAAGATGCA ATCAAGGCCGCCCTGGCTGATTACAAATTGAAACAAGAACCCAAAAAAGGAGAGGCAGAG AAGAAATGA Clone variation with respect to NM_014301.3 187 g=>n;188 c=>n;189 t=>n



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_014301 unedited <pre> GCGGTGCACCAATTGTAAACGACTCACTATAGGCGGCCGCAATCGGCACGAGGGCGCGC TCCCAGCTCGGAGCCGACTCGCAGACGCGCCCGCCCTCGGCGTCGCTCTGGACTGGCG CAGGCGCAAGCCGGCAAGATGGCGGCGGCTGGGGCTGGCCGTCTGAGGCGGGTGGCATCG GCTCTGCTGCTGCGGAGCCCCCGCTGCCCGCCGGGAGCTGTCGGCCCCGGCCCGACTC TATCACAAGAAGGTAGGGACAAAAGAGGGGACGCGCGGAATGCCGACTCAGCGGAGGCT GGGCTGGAGGGGCGCCGCGGGTCTGCGCAGCTAGGACTGGGAGCTGTGCCCTCCAC GTCTTTGCCCTGACTCGCTTTCCCTTGCTGCGCAGTGAGGCTCACTGCAACTGATAAACA ACAGTTACCGCTCATCGGCGGGCAGTTCAGGGGGCCCCGCGCTGGCCGCGACTTCGT GCGTCCCAATTTTAAATTCGCCAACAGCCAGGAGGAGGTCCTGTTGGGACTTGTCTT TCTGAGTCCAGGACAGACACACCCCGGAGCGGGCTCCGGCTTCAGCCACTCCGCTGCC CTGGCCAGATGACCTTGGGCTAGTCACTGCGCCTCTCTGAACCTGTTTCCCAGGTGTAA ATGGGGGGCTCTCAGCTGTCCCTCCAAGGATACTGTGCGTGGAGTCTGGCATGTTCC TGGCACATANGCCCCAGCAGGAGACCGTTTCTGTTACTGCNTTANGAGTGCATAAGG GAGTCAGGGCTGTTACCAACATGCGTANATGTTTTGTTGTTTGGGGGGTTTTTTGGC GGGAAAAGAGGGATAGATTCATAGTCTGCAGCCCTTGCTGTCTGGTGGCCAAAGTCCC CCANACGTGAAACTC </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_014301
Insert Size:	4300 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:	<u>NM_014301.2</u> , <u>NP_055116.1</u>
RefSeq Size:	1086 bp
RefSeq ORF:	429 bp
Locus ID:	23479
UniProt ID:	<u>Q9H1K1</u>
Cytogenetics:	12q23.3
Domains:	NifU_N

Gene Summary:

This gene encodes a component of the iron-sulfur (Fe-S) cluster scaffold. Fe-S clusters are cofactors that play a role in the function of a diverse set of enzymes, including those that regulate metabolism, iron homeostasis, and oxidative stress response. Alternative splicing results in transcript variants encoding different protein isoforms that localize either to the cytosol or to the mitochondrion. Mutations in this gene have been found in patients with hereditary myopathy with lactic acidosis. A disease-associated mutation in an intron may activate a cryptic splice site, resulting in the production of a splice variant encoding a putatively non-functional protein. A pseudogene of this gene is present on chromosome 1. [provided by RefSeq, Feb 2016]

Transcript Variant: This variant (1) contains an alternate exon in the 5' region and initiates translation at an alternate start codon compared to variant 2. The encoded isoform (1) has a distinct, shorter N-terminus, compared to isoform 2. Isoform 1 is localized to the cytosol.