

## Product datasheet for **MC205875**

### Iscu (NM\_025526) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Iscu (NM\_025526) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Iscu  
**Synonyms:** 2310020H20Rik; AA407971; Nifu; Nifun  
**Mammalian Cell Selection:** Neomycin  
**Vector:** PCMV6-Kan/Neo (PCMV6KN)  
**E. coli Selection:** Kanamycin (25 ug/mL)

**Fully Sequenced ORF:** >BC048409  
TCAAGCCGGCAGGATGGCGGGCGCCACGGGAGCTGGCCGCTCTGAGCGGGCGGCGTGGCGCTGCTGCTG  
CGGAGCCCGCGCCTGCCCGCCGGGAGCTGTCGGCTCCGGCCAGGCTCTACCACAAGAAGTTGTGGATC  
ATTATGAAAACCTCGGAACGTGGGATCCCTTGACAAGACATCTAAAAATGTTGGAACCGGATTGTTGGG  
GGCTCCGGCATGTGGTGACGTATGAACTGCAGATCCAGGTGGATGAAAAGGGGAAGATTGTGGACGCC  
AGATTCAAAACATTTGGCTGCGGCTCCGCCATTGCCTCCAGCTCCTTAGCCACAGAGTGGGTAAAGGGGA  
AAACGGTGGAGGAAGCCCTGACCATCAAAAACACCGACATCGCCAAGGAGCTCTGCCTGCCGCTGTGAA  
ACTGCACTGCTCCATGCTGGCAGAAGACGCCATCAAGGCCGCCCTGGCTGACTACAACTGAAGCAAGAG  
TCCAAGAAGGAGGAGCCAGAGAAGCAGTGAGCCCTGGAGACACTCCAGCCAGTCACAGCAGCTGCTTCCT  
GCCACCCTGCACATCAAAGAAGCTACGCAAAACGCACACTATTCACCCTTGACACAAAATGTGCCGTTGA  
TTACACCTGATCCCGTTCCTTTAGCTCACGTGTGCTTAGTGCAGTTAGTGTCTTATTGTTGTTG  
TGGCCTGGGACTGAAATCAGCACCGAAGTCTTAAGCTCTGGAGAGTGACAAGGACTTGTACCTGACCTGA  
GGTAGATTGCCAGAGAGCGCCTTATGCTGGCTATCTGATAGGATCTATTACTGAGTATTTAGCAGATCT  
GCATATATATATTATAATAAAAAATGTGAGACAATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** RsrII-NotI  
**ACCN:** NM\_025526  
**Insert Size:** 507 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).



[View online »](#)

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC048409</a> , <a href="#">AAH48409</a>
<b>RefSeq Size:</b>	935 bp
<b>RefSeq ORF:</b>	507 bp
<b>Locus ID:</b>	66383
<b>UniProt ID:</b>	<a href="#">Q9D7P6</a>
<b>Cytogenetics:</b>	5 F
<b>Gene Summary:</b>	Scaffold protein for the de novo synthesis of iron-sulfur (Fe-S) clusters within mitochondria, which is required for maturation of both mitochondrial and cytoplasmic [2Fe-2S] and [4Fe-4S] proteins. First, a [2Fe-2S] cluster is transiently assembled on the scaffold protein ISCU. In a second step, the cluster is released from ISCU, transferred to a glutaredoxin GLRX5, followed by the formation of mitochondrial [2Fe-2S] proteins, the synthesis of [4Fe-4S] clusters and their target-specific insertion into the recipient apoproteins. Cluster assembly on ISCU depends on the function of the cysteine desulfurase complex NFS1-LYRM4/ISD11, which serves as the sulfur donor for cluster synthesis, the iron-binding protein frataxin as the putative iron donor, and the electron transfer chain comprised of ferredoxin reductase and ferredoxin, which receive their electrons from NADH (By similarity).[UniProtKB/Swiss-Prot Function]