

Product datasheet for **SC118637**

IF 2(Mt) (MTIF2) (NM_002453) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IF 2(Mt) (MTIF2) (NM_002453) Human Untagged Clone
Tag:	Tag Free
Symbol:	IF 2(Mt)
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC118637 sequence for NM_002453 edited (data generated by NextGen Sequencing)

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ATGAACCAGAAGCTACTGAAGTTGGAGAACTTGCTACGATTTACACTATTTATAGGCAA
CTGCACAGTCTGTGTCAAAGAAGAGCATTAAAGACAGTGGAGGCATGGGTTTTTCATCTGCT
TACCCTGTGTGGACAGCTCAACTGTGTGCCTGGCCCTGGCCAACAGATGTGCTCAATGGG
GCTGCTTTATCTCAGTATAGGCTTCTAGTAACAAAAAGGAAGAAGGACCATGAAATCT
CAGTTATCTTCAACAAAATCTAAAAAGGTGGTAGAAGTATGGATTGGAATGACTATTGAG
GAACTGGCCAGGGCAATGGAAAAAACACAGATTATGTATATGAAGCTTTATTGAACACT
GATATTGACATAGATTCACTGGAAGCAGACTCACATTTAGATGAAGTCTGGATCAAAGAA
GTGATAACGAAGGCAGGGATGAAGTTAAAGTGGAGTAAATTTAAACAGGACAAAGTCAGA
AAAAATAAAGATGCTGTAAGAAGCCCCAGGCAGATCCAGCTTTATTAACCCCAAGGTCC
CCAGTTGTTACTATAATGGGCCATGTTGATCACGGGAAAACGACATTACTTGACAAATTT
CGAAAACTCAAGTGGCAGCAGTGGAACTGGAGGCATCACTCAGCACATTGGTGCCTTT
CTTGTCTCTCGCCTTCTGGGGAAAAGATAACTTTTCTTGATACTCCAGGACATGCTGCT
TTCTCAGCAATGAGAGCCAGAGGTGCTCAGGTCAGTACTGACATTGTGCTATTGGTTGAGCT
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GTTCTATTATCCTTGCCGTAATAAATGTGACAAAGCTGAGGCTGATCCTGAGAAAAGTG
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GTGCCTGTCTCCGCATACGGGCGATAATCTGATGGCTTTGGCAGAAGCAACAGTTGCT
CTTGACAGAAATGTTAGAATTGAAAGCAGATCCCAATGGTCCAGTGGAAAGCAACAGTAATA
GAGTCTTTCACAGACAAAGGAAGAGGTCTTGTACTACAGCTATAATTCAAAGAGGAACT
TTAAGAAAAGGCTCTGTTCTGGTTGCTGGAAAATGTTGGGCAAAAGTACGCTTAATGTTT
GATGAAAATGAAAAACAATTGATGAGGCCTATCCCAGCATGCCAGTGGGAATTACAGGC
TGGAGAGACCTTCTTCTGCAGGAGAAGAAATCTTGAAGTAGAATCTGAGCCAAGGGCA
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GTTATCCAACAGTCAGCTGCAAAAAAGGAGTAAAAATTAACCTCACAAAATAATTTAC
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CACCCAGTAGGTGAGGCATCTATACTAGCTACCTTCTCTGTAACAGAAGGGAAAGAAAAA
GTTCTGTGGCTGGCTGCAGAGTCCAAAAGGGACAGTTAGAAAAACAAAAAATTTAAA
CTAACCCGTAATGGACATGTAATTTGGAAGGGCTCATTAACTCATTGAAACACCATAAA
GATGACATTTCAATTGTCAAAACGGGAATGGATTGTGGTCTCAGTTTAGATGAAGACAAT
ATGGAATTTCAAGTGGGAGACAGAATTGTTGTTATGAAGAAAAGCAAATCAAGCCAAG
ACTTCTGGGATCCAGGATTTTAA

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Clone variation with respect to NM_002453.2
 176 c=>a;1666 g=>a

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002453 unedited
 TTTATTTGTATACGACTCCTATAGGGCGGCCGATTTCGGCACGAGGCTCCGCCCGTGT
 CAGAATCCAGGGGCCCGGGCTGTAGATTCCCTTGACAAGGATATCCTAGCGGCGAAACAA
 CACCGTACTGGGAGTCAGAACGCTCTGGTTCTAGTCTTGACTGCCATTAAGTACGAGAT
 CCGGAAAATGAGGCCATAGGAAACAAGTACTGCTGAGTCCAGATAAACTGACTGTC
 AGAGAGAAAACATGAACCAGAAGCTACTGAAGTTGGAGAAGTCTGCTACGATTTACACTAT
 TTATAGGCAACTGCACAGTCTGTGTCAAAGAAGAGCATTAAAGACAGTGGAGGCATGGGTT
 TTCATCTGCTTACCCTGTGTGGACAGCTCAACTGTGTGCCTGGCCCTGGCCAACAGATGT
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 ATGAAAATCTCAGTTATCTTCAACAAAATCTAAAAAGGTGGTAGAAGTATGGATTGGAAT
 GACTATTGAGGAACTGGCCAGGGCAATGGAAAAAACACAGATTATGTATATGAAGCTTT
 ATTGAACACTGATATTGACATAGATTCACTGGAAGCAGACTCACATTTAGATGAAGTCTG
 GATCAAAGAAGTGATAACGAAGGCAGGGATGAAGTTAAAGTGGAGTAAATTAACAGGA
 CANAGTCAGAAAAATAAAGATGCTGTAAGAAAGCCCCAGCAGATCCAGCTNTATTA
 CCCCAGTCCCCAGTTGTTACTATAATGGGGCCATGTGATCACGGGAAACGAATTACTTG
 ACCAATTCGAAAACACTCAGTGGCAGCAGTGGAACTGGAGGCTCACTCACACATTGGGCC
 TTCTGNCTCTCTGCTCCTGGGAAAGATACTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002453 unedited
 ACCCGCACCCCCCGCCGCCNCGGGCCGAACACCNCNCCTTTTGACTCTGCACCG
 CGNCCGCATACTAGGATCGNGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
 TTTTTTTTTTTTTTGGGGTATTTACATTTTTAATGGAATTTAAAAACCTGGATCCCAA
 AAGTCTTGGCTTGAATTTGCTTTTTTTCATAACAACAATTTGTCTCCCACTTGAATTT
 CCATATTGGCTTCATTTAACTGAAACCACAATCCATTCCCGTTTTGACAATTGAAATGG
 CATTTTTATGGGGTTTCAATGAGGGTAATGAGCCCTTCCAAATTACATGGCCATTACGGG
 TTAATTTAAAAATTTTTGGTTTTCTAACTGGCCCTTTTGACTTTGCAGCCAGCCACAG
 GAATTTTTTTTTCCCTTTTGTACAAAAAGGGAGCTAGTATAAATGCCTCACCTACTG
 GGGGCTCTCCACAACACAGGGGAATCTGGTGGTCAATTCCTTTTGCAATCTTTAACAA
 AACGGGAATTTTGGGAAGGTAAAAATTTACTCCTTTTTTGAGCTGACTGGTGGGA
 TAACATTGCCTGCATTCACATTAAGCCCTATATAACACCCTCAAATGTTTCAACAAAGG
 TAACATCATTGCACTTATATCACCCACTCCAAAATGGCCTAATTCTAATTCACACTCGG
 GGAAGCATCATAGGTATCTATAATGTTCAAAATGGCCTTAACAGAACCATCAACATTCC
 CTTTATAATCCCCGAAAGGCCCTTTGAACTCTTCCCCTTTCTTTTTGGGCTTTAAGG
 AATTTGGTCTTTTTCTTTAAAAACCGGAAAAATGATCTCCCTCCCAAGAAAATGCCCC
 TAT

Restriction Sites:

NotI-NotI

ACCN:

NM_002453

Insert Size:

2710 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: [NM_002453.2](#), [NP_002444.2](#)

RefSeq Size: 2544 bp

RefSeq ORF: 2184 bp

Locus ID: 4528

UniProt ID: [P46199](#)

Cytogenetics: 2p16.1

Domains: GTP_EFTU, GTP_EFTU_D2

Gene Summary: During the initiation of protein biosynthesis, initiation factor-2 (IF-2) promotes the binding of the initiator tRNA to the small subunit of the ribosome in a GTP-dependent manner. Prokaryotic IF-2 is a single polypeptide, while eukaryotic cytoplasmic IF-2 (eIF-2) is a trimeric protein. Bovine liver mitochondria contain IF-2(mt), an 85-kD monomeric protein that is equivalent to prokaryotic IF-2. The predicted 727-amino acid human protein contains a 29-amino acid presequence. Human IF-2(mt) shares 32 to 38% amino acid sequence identity with yeast IF-2(mt) and several prokaryotic IF-2s, with the greatest degree of conservation in the G domains of the proteins. [provided by RefSeq, Mar 2016]