

Product datasheet for SC113513

IMPACT (NM_018439) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPACT (NM_018439) Human Untagged Clone
Tag:	Tag Free
Symbol:	IMPACT
Synonyms:	RWDD5
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC113513 sequence for NM_018439 edited (data generated by NextGen Sequencing)

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ATGGCTGAGGGGACGCGAGGGAGCGACCAGAGGCAGAATGAGGAAATTGAAGCAATGGCA
GCCATTTATGGCGAGGAGTGGTGTGTCATTGATGACTGTGCCAAATATTTGTATTAGA
ATTAGCGACGATATAGATGACCCCAATGGACACTTTGCTTGACGGTGATGCTGCCGAAT
GAATACCCAGGTACAGCTCCACCTATCTACCAGTTGAATGCTCCTTGGCTTAAAGGGCAA
GAACGTGCGGATTTATCAAATAGCCTTGAGGAAATATATATTCAGAATATCGGTGAAAGT
ATTCTTTACCTGTGGGTGGAGAAAATAAGAGATGTTCTTATACAAAAATCTCAGATGACA
GAACCAGGCCAGATGTAAAGAAGAAAAGTGAAGAGGAAGATGTTGAATGTGAAGATGAT
CTCATTTTAGCATGTGAGCCGAAAGTTCGGTTAAAGCATTGGATTTTGATATCAGTGAA
ACTCGGACAGAAGTAGAAGTAGAAGATTACCTCCGATTGATCATGGCATTCTTATTACA
GACCGAAGAAGTACTTTTCAGGCACACTTGGCTCCAGTGGTTTGTCCCAACAGGTGAAA
ATGGTTCTTTCCAAATTGTATGAGAATAAGAAAATAGCTAGTGCCACCCACAACATCTAT
GCCTACAGAATATATTGTGAGGATAAACAGACCTTCTTACAGGATTGTGAGGATGATGGG
GAAACAGCAGCTGGTGGGCGTCTTCTTCATCTCATGGAGATTTTGAATGTGAAGAATGTC
ATGGTGGTAGTATCACGCTGGTATGGAGGGATTCTGCTAGGACCAGATCGCTTTAAACAT
ATCAACAAGTGTGCCAGAAACATACTAGTGGAAGAAAGTACACAAATTCACCTGAGGAG
TCATCTAAGGCTTTGGGAAAGAACAAAAAGTAAGAAAAGACAAGAAGAGGAATGAACAT
TAA
  
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Clone variation with respect to NM_018439.3



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_018439 unedited

```
GGTTTACATTGTATACGACTCATATAGGGCGGCCGGAATTCGACGAGGCCCGCCCC
CGCGCTCCGGACCTGGCAGGCGCGGCTGCAGGCGAGTCCAGGGGCCACATGGCTGAGG
GGGACGCAAGGAGCGACACAGAGGCAGAATGAGGAAATTGAAGCAATGCGAGCCATTTATG
GCGAGGAGTGGTGTGTCTTGTGACTGTGCCAAAATATTTTGTATTAGAATTAGCGACG
ATATAGATGACCCCAAAATGGACACTTTGCTTGCAGGTGATGCTGCCGAATGAATACCCAG
GTACAGCTCCACCTATCTACCAGTTGAATGCTCCTTGCTTAAAGGGCAAGAACGTGCGG
ATTTATCAAATAGCCTTGAGGAAATATATATTAGAATATCGGTGAAAGTATCTTTACC
TGTGGGTGGAGAAAATAAGAGATGTTCTTATACAAAAATCTCAGATGACAGAACGAGCC
CAGATGTAAGAAGAAAACTGAAGAGGAAGATGTTGAATGTGAAGATGATCTCATTTTAG
CATGTCAGCCGGAAGTTCGGTTAAAGCATTGGATTTTGATATCAGTGAAACTCGGACAG
AAGTAGAAGTAGAAGAATTACCTCCGATTGATCATGGCATTCTATTACAGACCGAAGAA
GTACTTTTCAGGCACACTTGGCTCCAGTGGTTTGTCCCAACAGGTGAAAATGGTTCTTTC
CAATTGTATGAGATAAGAANATAGCTAGTGCCACCCCCACACATCTATGCCTACAGAATAT
ATTGTGAGGATAAACACACCTTCTTACANGATTGTGAGGATGATGGGGAAACAGCAGCTG
GTGGGCGTCTCTTCATCTCATGGAGATTTTGATGTGAAAGATGTGATGTGGGGTGATC
ACCTGTATGAAC
```

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_018439 unedited

```
GCGGGCCGAATTTAGNATCGAGTTTTTTTTTTTTTTTTTTTAAGCCATAGAAGAATATTT  
ATTGACATGGAAATGTTAACAATATACTTCTATATGAAATATGTAGGCTACAAAACAGT  
ATATACAGTTTAATACCATTTTTATGGAAGAAAAATAACCATATATACAAAATCATGCA  
TAAGAAAAAATAATATAAGGATGTACATACCAAAATATTAATAATAATGGCTATCTCTGG  
ATAGTGGAATCAGAGGGATTATGTAATTTTCTGATAAATTTTCTGTCTCCAAACAGC  
ATCCGCTTCATACTATTATTTCTTGGTTGTAATTAGTTTGATATAATTCTCTTCAGAAAG  
GCTCTGTTTCACTATATATACCTCAAAGCATACTTTTGATGCAGCTTCTGCAATTCCTT  
CTAAAAAGTAGATAACACTTGCTCTTATATTCTGGCATATGAAGACTATTTGTAATTAAC  
ACACTATAAAATATGTCAAAGCAGGCCAGGCATGGTGGCTCACACCTGTAATTCAAAAAC  
CTTGGCAGGAAGATCGATTGAGGCCAGGAGCTCAAGACGAGCCTGNGCAACATAGAAAAA  
CCCTATCTTTACAAAAAAACTTTAAAAATTAGCCAGTGTAATAGCACATGCCTGTCTG  
NTATCCACAGTACTTGGCAGGCTGGAAGGTCAAGGCTGCANTGAGCCATGATCATGCCAC  
TGCACTCCACCTAGGTGACAGAGCAAGAACTCATCTCTAAAAAAATTTTTAAATAAAG  
CAAATATGCCACAGCATAAATCTGAATGTAAAAATTATTATTTGGGAGACTGAAAAATCT  
CCTAATCAAGACAAAATTTAAATTGAGGAAAAAAATACTATCTTTATTAGTTTCAGGTTCC  
ATAAAAAAATAAATGTGAAAAACCTCCAATTTAAAACTGGAAATTTTCTCTCTCTTTTA  
CAACAAT
```

Restriction Sites:

NotI-NotI

ACCN:

NM 018439

Insert Size:

3700 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_018439.1, NP_060909.1</u>
RefSeq Size:	3683 bp
RefSeq ORF:	963 bp
Locus ID:	55364
UniProt ID:	<u>Q9P2X3</u>
Cytogenetics:	18q11.2
Domains:	UPF0029, RWD
Gene Summary:	<p>Translational regulator that ensures constant high levels of translation upon a variety of stress conditions, such as amino acid starvation, UV-C irradiation, proteasome inhibitor treatment and glucose deprivation. Plays a role as a negative regulator of the EIF2AK4/GCN2 kinase activity; impairs GCN1-mediated EIF2AK4/GCN2 activation, and hence EIF2AK4/GCN2-mediated eIF-2-alpha phosphorylation and subsequent down-regulation of protein synthesis. May be required to regulate translation in specific neuronal cells under amino acid starvation conditions by preventing GCN2 activation and therefore ATF4 synthesis. Through its inhibitory action on EIF2AK4/GCN2, plays a role in differentiation of neuronal cells by stimulating neurite outgrowth.[UniProtKB/Swiss-Prot Function]</p>