

Product datasheet for **SC324621**

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:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_018439.1
 GCCCGCCCCCGCTCCGGACCTGGCAGGCGGCGGCTGCAGGGCAGGTCCAGGGGCCAC
 ATGGCTGAGGGGACGCAGGGAGCGACCAGAGGCAGAATGAGGAAATTGAAGCAATGGCA
 GCCATTATGGCGAGGAGTGGTGTGTCATTGATGACTGTGCCAAATATTTGTATTAGA
 ATTAGCGACGATATAGATGACCCCAATGGACACTTTGCTTGACAGGTGATGCTGCCGAAT
 GAATACCCAGGTACAGCTCCACCTATCTACCAGTTGAATGCTCCTTGGCTTAAAGGGCAA
 GAACGTGCGGATTTATCAAATAGCCTTGAGGAAATATATTCAGAATATCGGTGAAAGT
 ATTCTTTACCTGTGGGTGGAGAAAATAAGAGATGTTCTTATACAAAATCTCAGATGACA
 GAACCAGGCCAGATGTAAGAAGAAAACCTGAAGAGGAAGATGTTGAATGTGAAGATGAT
 CTCATTTTAGCATGTGAGCCGAAAGTTCGGTTAAAGCATTGGATTTTGATATCAGTGAA
 ACTCGGACAGAAGTAGAAGTAGAAGAATTACCTCCGATTGATCATGGCATTCTATTACA
 GACCGAAGAAGTACTTTTCAGGCACACTTGGCTCCAGTGGTTTGTCCCAACAGGTGAAA
 ATGGTTCTTTCAAATTGTATGAGAATAAGAAAATAGCTAGTGCCACCCACAACATCTAT
 GCCTACAGAATATATTGTGAGGATAAACAGACCTTCTTACAGGATTGTGAGGATGATGGG
 GAAACAGCAGCTGGTGGGCGTCTTCTTCATCTCATGGAGATTTTGAATGTGAAGAATGTC
 ATGGTGGTAGTATCACGCTGGTATGGAGGATTCTGCTAGGACCAGATCGCTTTAAACAT
 ATCAACAACCTGTGCCAGAAACATACTAGTGGAAGAACTACACAAATTCACCTGAGGAG
 TCATCTAAGGCTTTGGGAAAGAACAAAAAGTAAGAAAAGACAAGAAGAGGAATGAACAT
 TAATACCTGAACTATAGGAAAGGTTAATTTGCCTATAATTATATACATTCCATAGTC
 ATCAAGGAATATATTGTGAGAGAGAGTATCCTTGACTGCTTAAGTCAGCCAGTTCAGCA
 TGGATACCAACATTAGCTTTTCTTCTGGTTATATCATCTGCCAAAATAGAGAACTTAT
 GATCTATTCTATGTGTGTTTCAGGCTTATTTGGGAGAACTAATTTGAACCTAATCACCCT
 TCATCTAATTTTAGCAAGGTAACAGTTGCCAGGCGAGTACCTGAATTAAGTGTCCATTT
 CAGTACATGTCAAGTGCTTTGTTAGGTGGAGAAAGAAATGTCTCTAGAGGAATATAAATA
 CCTGATTTCTTGTGATCGAGATTCTTGTACTGTTAAATGAATATTGCCTTTTACTGCTCT
 TTATGGCTTATTGGAATAGGAGCTCATTAAAGATTGATCTTGGAGAGTTTCTTCTGTGA
 TTTTAGTTCATAAGTATGTCACCTTTTCTTTTATAGTGTTCATCATTGAGTAATGGATTA
 AGTGAAAATCCAGGAGTATCCATCTGCAGTTATGTGCTGAGGTGATAATTCATCCAACAT
 ATTTGTTAGCATAAATATTATGCTTCAGTTTCTGTTGCAAATGGTGATTGTGAAATTAC
 AGAAAGTGATTTTCTAGTCTGCTTTTTTTGTTTAAATCTTGTAATGTAAGCAATAAATAT
 GGAGTGTGAGTAGTCTCCTTCCACCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_018439

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_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:	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]