

Product datasheet for **RG204631**

IMPACT (NM_018439) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	IMPACT
Synonyms:	RWDD5
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG204631 representing NM_018439
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGAGGGGGACGCAGGGAGCGACCAGAGGCAGAATGAGGAAATTGAAGCAATGGCAGCCATTTATG
GCGAGGAGTGGTGTGCATTGATGACTGTGCCAAAATATTTGTATTAGAATTAGCGACGATATAGATGA
CCCCAAATGGACACTTTGCTTGCAGGTGATGCTGCCGAATGAATACCCAGGTACAGCTCCACCTATCTAC
CAGTTGAATGCTCCTTGGCTTAAAGGGCAAGAACGTGCGGATTTATCAATAGCCTTGAGGAAATATATA
TTCAGAATATCGGTGAAAGTATTCTTTACCTGTGGGTGGAGAAAAAAGAGATGTTCTTATACAAAAATC
TCAGATGACAGAACCAGGCCAGATGTAAGAAGAAAACTGAAGAGGAAGATGTTGAATGTGAAGATGAT
CTCATTTTAGCATGTCAGCCGAAAGTTCGGTTAAAGCATTGGATTTTGATATCAGTGAACTCGGACAG
AAGTAGAAGTAGAAGAATTACCTCCGATTGATCATGGCATTCTATTACAGACCGAAGAAGTACTTTTCA
GGCACACTTGGCTCCAGTGGTTTGTCCAAACAGGTGAAAATGGTTCTTTCCAAATTGTATGAGAATAAG
AAAATAGCTAGTGCCACCCACAACATCTATGCCTACAGAATATATTGTGAGGATAAACAGACCTTCTTAC
AGGATTGTGAGGATGATGGGAAACAGCAGCTGGTGGCGCTCTTCTCATCTCATGGAGATTTTGAATGT
GAAGAATGTATGGTGGTAGTATCACGCTGGTATGGAGGGATTCTGCTAGGACCAGATCGCTTTAAACAT
ATCAACAACGTGCCAGAAACATACTAGTGGAAGAAAGAACTACACAAATTACCTGAGGAGTCATCTAAGG
CTTTGGGAAAGAACAAAAAGTAAGAAAAGACAAGAAGAGGAATGAACAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



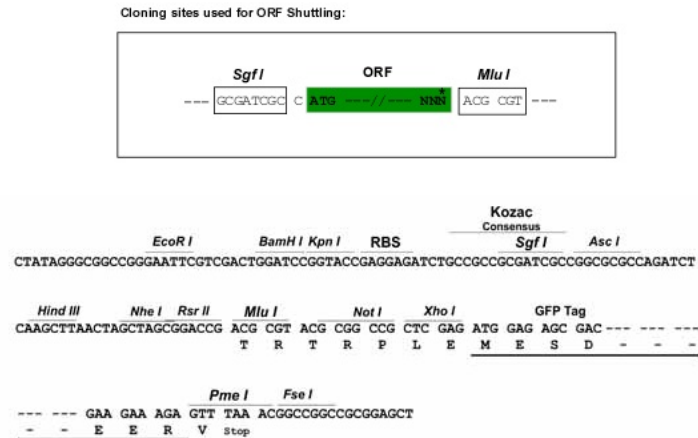
Protein Sequence: >RG204631 representing NM_018439
Red=Cloning site Green=Tags(s)

MAEGDAGSDQRQNEEIEAMAAIYGEWCVIDDCAKIFCIRISDDIDDPKWTCLQVMLPNEYPGTAPPIY
QLNAPWLKGQERADLSNSLEEIYIQNIGESILYLWVEKIRDVLIQKSQMTEPGPDVKKKTEEDVECEDD
LILACQPESSVKALDFDISETRTEVEVEELPPIDHGIPITDRRSTFQAHLAPVVCVKQVMVLSKLYENK
KIASATHNIYAYRIYCEDKQTFLDCEDDGETAAGRLLHLMEILNVKNVMVVSRWYGGILLGPDRFKH
INNCARNILVEKNYTNSPPESSKALGKNKKVRKDKKRNEH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018439

ORF Size: 960 bp

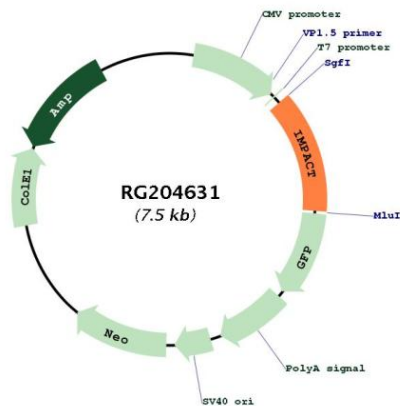
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_018439.3</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]

Product images:



Circular map for RG204631