

Product datasheet for **MC201164**

Impact (NM_008378) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Impact (NM_008378) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Impact
Synonyms:	E430016J11Rik
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF:

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>BC020524 sequence for NM_008378
CGGACGCGTGGGCTCTTTTCGGATTTGGGCATTTGGAGCTGGTGTGCGCAGATCCTGAGCACCATGGCTGAA
GAGGAAGTAGGGAACAGCCAGAGGCAGAGTGAAGAAATCGAAGCAATGGCAGCCATTTATGGCGAGGAGT
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GACACTTTGTTTACAGGTGATGTTGCCAAGTGAGTACCCGGGTACAGCACCAGCTTCTTATCAGCTGAAC
GCTCCCTGGCTGAAAGGGCAAGAACGCGCAGACTTATCGAACAGCCTTGAGGAGATATATGTCCACAACA
TGGTGAATCTATTCTTTACCAGTGGGTGGAGAAAATAAGAGATGCTCTGATACAGAAAATCTCAGATAAC
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GAGCACCCGCGGAAAATCCAGTTAAAACATTGGACCTCAAATCAGTGAAGAAACTCAACCAGAAAACCTG
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GCCACCCACAACATCTATGCCTACAGGATATTCTGTGAGGATAAACAGACCTTCTTGCAAGACTGTGAAG
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CCTATATGTGTGTTTGGAACTTACCTCTGTTTCCATGAAATGCTAAGTATATCCTATGTATTAATTGT
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GAGCTCCTTAACCTTCGCTGCAGGTGGGAGGGGAGACCCAGTTCCTCACTTCTAACTCCTGAAATTGCG
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TTATTAGTTGACATGTTTCCACATGCCAGTATCTATGAGCAAAATGGCATCCACGTAGACGGGCAGAGCA
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ATATTGTTAACATTTTCCATATCAATAAATATTTCTTCTATGGCTTAAAAAAAAAAAAAAAAAAAAAAAAA AAAAAA
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Restriction Sites:

RsrII-NotI

ACCN:	NM_008378
Insert Size:	957 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:	BC020524 , AAH20524
RefSeq Size:	3436 bp
RefSeq ORF:	957 bp
Locus ID:	16210
UniProt ID:	O55091
Cytogenetics:	18 A1
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 (PubMed:15937339, PubMed:23447528, PubMed:24333428). May be required to regulate translation in specific neuronal cells under amino acid starvation conditions by preventing GCN2 activation and therefore ATF4 synthesis (PubMed:15937339, PubMed:23447528). Through its inhibitory action on EIF2AK4/GCN2, plays a role in differentiation of neuronal cells by stimulating neurite outgrowth (PubMed:23447528).[UniProtKB/Swiss-Prot Function]