

Product datasheet for **RC221385**

IREB2 (NM_004136) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IREB2 (NM_004136) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IREB2
Synonyms:	ACO3; IRE-BP 2; IRE-BP2; IRP2; IRP2AD; NDCAMA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221385 representing NM_004136
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

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Protein Sequence: >RC221385 representing NM_004136
Red=Cloning site Green=Tags(s)

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NAPNPGGGDLQKAGKLSPLKVQPKLPCRGQTT CRGSCDSGELGRNSGTFSSQIENTPILCPFHLQPVPE
PETVLKNQEV EFGGRNRERLQFFKWSRVFKNVAVIPPGTGM AHQINLEYLSRVVFEEKDLLFPDSVVGTD
SHITMVNGLGILGWGVGGIETEAVMLGLPVSL TLPEVVGCEL TGSNPFVTSIDVVVLGITKHLRQGVVAG
KFVEFFSGV SLSIVDRTTIANMCPEYGAILSFFPVDN VTLKHLEHTGF SKAKLESMETYLKAVKLFRN
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SLTFPEELSPGITLNIQTSTGKVFSVIASFEDDVEITL YKHGGLLN FVARKFS
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6285_c03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



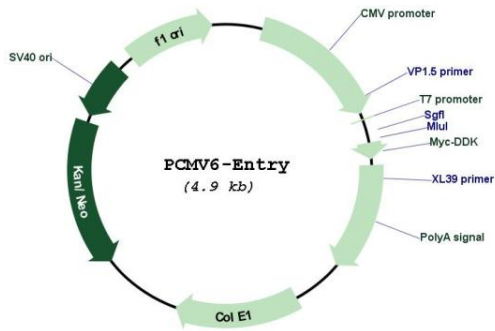
* The last codon before the Stop codon of the ORF

ACCN: NM_004136

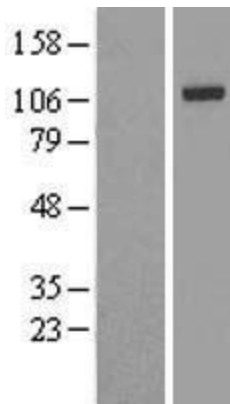
ORF Size: 2889 bp

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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_004136.4
RefSeq Size:	3928 bp
RefSeq ORF:	2892 bp
Locus ID:	3658
UniProt ID:	P48200
Cytogenetics:	15q25.1
Protein Families:	Druggable Genome
MW:	104.9 kDa
Gene Summary:	The protein encoded by this gene is an RNA-binding protein that acts to regulate iron levels in the cells by regulating the translation and stability of mRNAs that affect iron homeostasis under conditions when iron is depleted. When iron levels are low, this protein binds to iron-responsive elements (IRES), stem-loop structures located either in the 5' or 3' UTRs. Binding to the 5' UTR represses translation, while binding to the 3' UTR inhibits mRNA degradation. When iron is found in the cell, this protein is degraded in a F-box and leucine rich repeat protein 5-dependent manner. Variants in this gene have been associated with lung cancer and chronic obstructive pulmonary disease (COPD). Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2017]

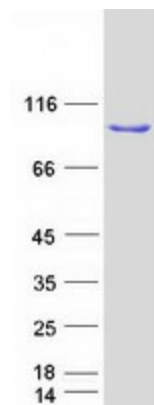
Product images:



Circular map for RC221385



Western blot validation of overexpression lysate (Cat# [LY418191]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221385 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IREB2 protein (Cat# [TP321385]). The protein was produced from HEK293T cells transfected with IREB2 cDNA clone (Cat# RC221385) using MegaTran 2.0 (Cat# [TT210002]).