OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC215002

MSRB2 (NM_012228) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MSRB2 (NM_012228) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MSRB2
Synonyms:	CBS-1; CBS1; CGI-131; MSRB; PILB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC215002 representing NM_012228
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAGCAGGGGCAGAGACGGGCAGAGGGCAGAGGGCGGCAGCGCCGGAGCGGCGTCATGGCCGGCTCC
TCTGGTTGCTCCGGGGCCTGACCCTCGGAACTGCGCCTCGGCGGGCGGTGCGGGGCCAAGCGGGCGGCGG
CGGGCCCGGCACCGCGGGGATCGTGGGGGAGGCAGGGTCTCTTGCAACGTGTGAGCTGCCTCTTGCCAAG
AGTGAGTGGCAAAAGAAACTAACCCCGGAGCAGTTCTACGTCACAAGAGAAAAGGGAACGGAACCGCCTT
TCAGTGGGATCTACCTGAATAACAAGGAAGCAGGAATGTATCATTGCGTGTGCTGCGACAGTCCACTCTT
CAGTTCTGAGAAAAAGTACTGCTCTGGCACTGGGTGGCCTTCGTTTTCTGAGGCTCATGGTACGTCTGGC
TCTGATGAAAGCCACACAGGGATCCTGAGACGTCTGGATACCTCGTTAGGATCAGCTCGCACAGAGGTTG
TCTGCAAGCAGTGTGAAGCTCATCTAGGTCACGTGTTTCCTGATGGACCTGGGCCCAATGGTCAGAGGTT
TTGCATCAACAGTGTGGCTTTGAAGTTCAAACCAAGGAAACAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215002 representing NM_012228
Red=Cloning site Green=Tags(s)

MGAGAETGRGQRAAAPERRHGRLLWLLRGLTLGTAPRRAVRGQAGGGGPGTAGIVGEAGSLATCELPLAK
SEWQKKLTPEQFYVTREKGTEPPFSGIYLNNKEAGMYHCVCCDSPLFSSEKKYCSGTGWPSFSEAHGTSG
SDESHTGILRRLDTSLGSARTEVVCKQCEAHLGHVFPDGPGPNGQRFCINSVALKFKPRKH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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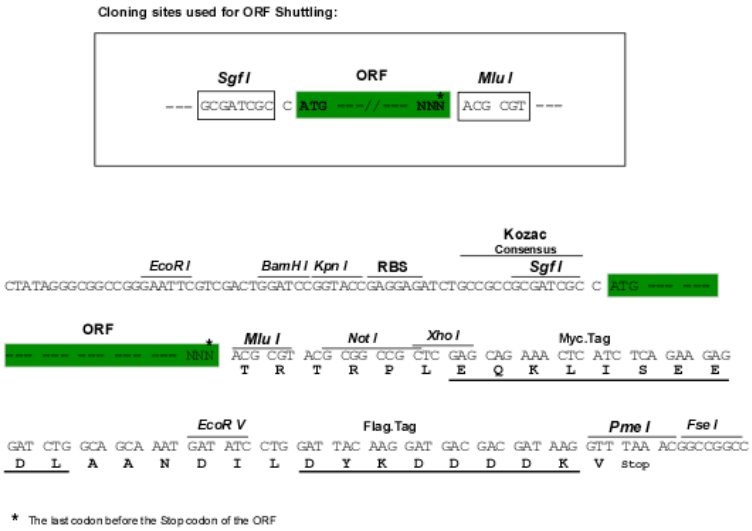
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012228

ORF Size: 603 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.

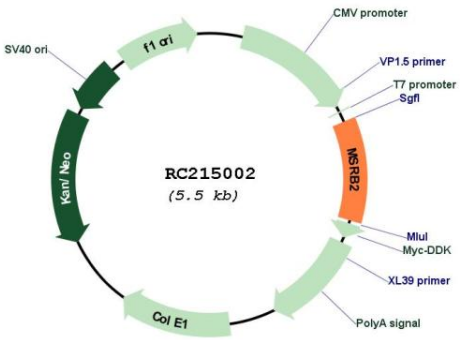
RefSeq: NM_012228.2, NP_036360.2

RefSeq Size: 903 bp

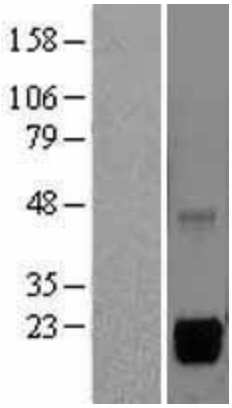
RefSeq ORF: 549 bp

Locus ID:	22921
UniProt ID:	Q9Y3D2
Cytogenetics:	10p12.2
Domains:	SelR
Protein Families:	Transcription Factors
MW:	21.47 kDa
Gene Summary:	Methionine-sulfoxide reductase that specifically reduces methionine (R)-sulfoxide back to methionine. While in many cases, methionine oxidation is the result of random oxidation following oxidative stress, methionine oxidation is also a post-translational modification that takes place on specific residue. Upon oxidative stress, may play a role in the preservation of mitochondrial integrity by decreasing the intracellular reactive oxygen species build-up through its scavenging role, hence contributing to cell survival and protein maintenance. [UniProtKB/Swiss-Prot Function]

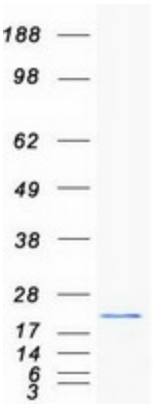
Product images:



Circular map for RC215002



Western blot validation of overexpression lysate (Cat# [LY402169]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215002 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MSRB2 protein (Cat# [TP315002]). The protein was produced from HEK293T cells transfected with MSRB2 cDNA clone (Cat# RC215002) using MegaTran 2.0 (Cat# [TT210002]).