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Product datasheet for RC222315

MICB (NM_005931) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MICB (NM_005931) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MICB
Synonyms:	PERB11.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC222315 representing NM_005931
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGCTGGGCCGGGTCCTGCTGTTTCTGGCCGTCGCCTTCCCTTTTGCACCCCCGGCAGCCGCCGCTG
AGCCCCACAGTCTTCGTTACAACCTCATGGTGCTGTCCCAGGATGGATCTGTGCAGTCAGGGTTTCTCGC
TGAGGGACATCTGGATGGTCAGCCCTTCCTGCGCTATGACAGGCAGAAACGCAGGGCAAAGCCCCAGGGA
CAGTGGGCAGAAGATGTCCTGGGAGCTGAGACCTGGGACACAGAGACCGAGGACTTGACAGAGAATGGGC
AAGACCTCAGGAGGACCCTGACTCATATCAAGGACCAGAAAGGAGGCTTGCATTCCCTCCAGGAGATTAG
GGTCTGTGAGATCCATGAAGACAGCAGCACCAGGGGCTCCCGGCATTTCTACTACGATGGGGAGCTCTTC
CTCTCCCAAAACCTGGAGACTCAAGAATCGACAGTGCCCCAGTCCTCCAGAGCTCAGACCTTGGCTATGA
ACGTCACAAATTTCTGGAAGGAAGATGCCATGAAGACCAAGACACACTATCGCGCTATGCAGGCAGACTG
CCTGCAGAAACTACAGCGATATCTGAAATCCGGGGTGGCCATCAGGAGAACAGTGCCCCCCATGGTGAAT
GTCACCTGCAGCGAGGTCTCAGAGGGCAACATCACCGTGACATGCAGGGCTTCCAGCTTCTATCCCCGGA
ATATCACACTGACCTGGCGTCAGGATGGGGTATCTTTGAGCCACAACACCCAGCAGTGGGGGGATGTCCT
GCCTGATGGGAATGGAACCTACCAGACCTGGGTGGCCACCAGGATTCGCCAAGGAGAGGAGCAGAGGTTC
ACCTGCTACATGGAACACAGCGGGAATCACGGCACTCACCCTGTGCCCTCTGGGAAGGCGCTGGTGCTTC
AGAGTCAACGGACAGACTTTCCATATGTTTCTGCTGCTATGCCATGTTTTGTTATTATTATTATTCTCTG
TGTCCCTTGTTGCAAGAAGAAAACATCAGCGGCAGAGGGTCCAGAGCTTGTGAGCCTGCAGGTCCTGGAT
CAACACCCAGTTGGGACAGGAGACCACAGGGATGCAGCACAGCTGGGATTTCAGCCTCTGATGTCAGCTA
CTGGGTCCACTGGTTCCACTGAGGGCGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC222315 representing NM_005931
Red=Cloning site Green=Tags(s)

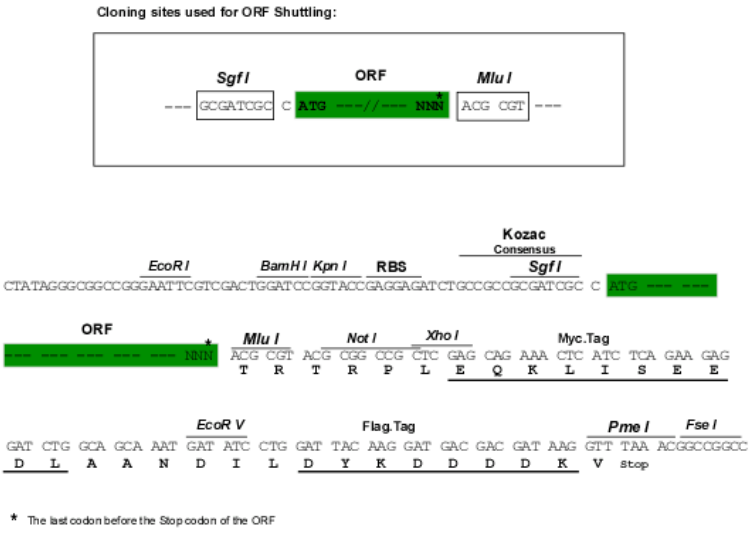
MGLGRVLLFLAVAFPFAPPAAAAEPHSLRYNLMVLSQDGSVQSGFLAEGHLDGQPFLRYDRQKRRAKPQG
QWAEDVLGAETWDTETEDLTENGQDLRRTLTHIKDQKGGLHSLQEIRVCEIHEDSSTRGSRHFYYDGELF
LSQNLETQESTVPQSSRAQTLAMNVTNFWKEDAMKTKTHYRAMQADCLQKLQRYLKSGVAIRRTVPPMVN
VTCSEVSEGNITVTCRASSFYPRNITLTWRQDGVSLSHNTQQWGDVLPDGNGTYQTWVATRIRQGEEQRF
TCYMEHSGNHGTHPVPSGKALVLQSQRTDFPYVSAAMPCFVIIIILCVPCCKKKTSAAEGPELVSLQVLD
QHPVGTGDHRDAAQLGFQPLMSATGSTGSTEGA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6097_a09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005931

ORF Size: 1149 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

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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.
RefSeq:	NM_005931.5
RefSeq Size:	2385 bp
RefSeq ORF:	1152 bp
Locus ID:	4277
UniProt ID:	Q29980
Cytogenetics:	6p21.33
Domains:	MHC_I, ig, IGc1
Protein Families:	Druggable Genome
Protein Pathways:	Natural killer cell mediated cytotoxicity
MW:	42.4 kDa
Gene Summary:	This gene encodes a heavily glycosylated protein which is a ligand for the NKG2D type II receptor. Binding of the ligand activates the cytolytic response of natural killer (NK) cells, CD8 alphabeta T cells, and gammadelta T cells which express the receptor. This protein is stress-induced and is similar to MHC class I molecules; however, it does not associate with beta-2-microglobulin or bind peptides. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

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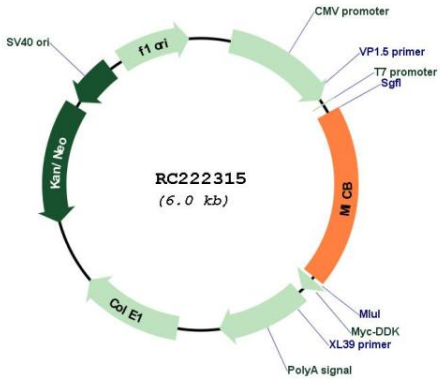
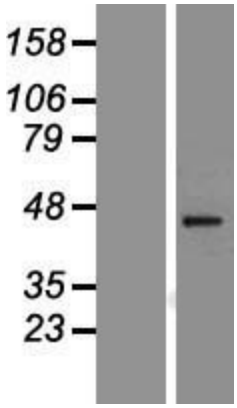
Product images:



Circular map for RC222315



Western blot validation of overexpression lysate (Cat# [LY416972]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222315 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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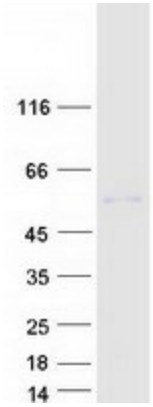
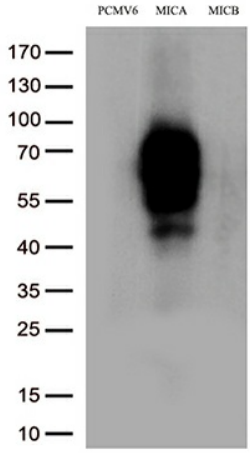
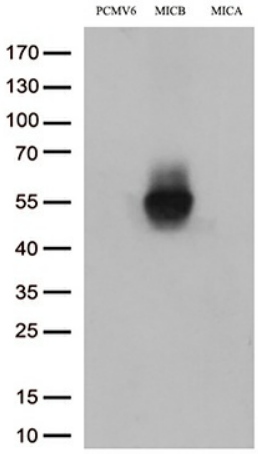


Coomassie blue staining of purified MICB protein (Cat# [TP322315]). The protein was produced from HEK293T cells transfected with MICB cDNA clone (Cat# RC222315) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MICA/MICB (Cat# [RC204447]/Cat# RC222315 Middle/, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MICA antibody (Cat# [TA813288])(1:1000)



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MICB/MICA (Cat# RC222315/Cat# [RC204447] Middle/, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MICB antibody (Cat# [TA813500])(1:1000)

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