

## **Product datasheet for SC120030**

## MICA (NM\_000247) Human Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** MICA (NM\_000247) Human Untagged Clone

Tag: Tag Free Symbol: MICA

Synonyms: MIC-A; PERB11.1

Mammalian Cell None

Selection:

E. coli Selection:

Vector: pCMV6-XL5

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Fully Sequenced ORF: >OriGene sequence for NM\_000247 edited

Ampicillin (100 ug/mL)

CGCCTTCTCCCCGGCCACTGCTTGAGCCGCTGAGAGGGTGGCGACGTCGGGGCCATGGGG CTGGGCCCGGTCTTCCTGCTTCTGGCTGGCATCTTCCCTTTTGCACCTCCGGGAGCTGCT TCAGGGTTTCTCACTGAGGTACATCTGGATGGTCAGCCCTTCCTGCGCTGTGACAGGCAG AAATGCAGGGCAAAGCCCCAGGGACAGTGGGCAGAAGATGTCCTGGGAAATAAGACATGG GACAGAGAGACCAGAGACTTGACAGGGAACGGAAAGGACCTCAGGATGACCCTGGCTCAT ATCAAGGACCAGAAAGAAGGCTTGCATTCCCTCCAGGAGATTAGGGTCTGTGAGATCCAT GAAGACAACAGCACCAGGAGCTCCCAGCATTTCTACTACGATGGGGAGCTCTTCCTCCC CAAAACCTGGAGACTGAGGAATGGACAATGCCCCAGTCCTCCAGAGCTCAGACCTTGGCC ATGAACGTCAGGAATTTCTTGAAGGAAGATGCCATGAAGACCAAGACACACTATCACGCT ATGCATGCAGACTGCCTGCAGGAACTACGGCGATATCTAAAATCCGGCGTAGTCCTGAGG AGAACAGTGCCCCCATGGTGAATGTCACCCGCAGCGAGGCCTCAGAGGGCAACATTACC GTGACATGCAGGGCTTCTGGCTTCTATCCCTGGAATATCACACTGAGCTGGCGTCAGGAT ACCTACCAGACCTGGGTGGCCACCAGGATTTGCCAAGGAGAGGAGCAGAGGTTCACCTGC TACATGGAACACAGCGGGAATCACAGCACTCACCCTGTGCCCTCTGGGAAAGTGCTGGTG CTTCAGAGTCATTGGCAGACATTCCATGTTTCTGCTGTTGCTGCTGCTGCTATTTTTGTT ATTATTATTTCTATGTCCGTTGTTGTAAGAAGAAACATCAGCTGCAGAGGGTCCAGAG CTCGTGAGCCTGCAGGTCCTGGATCAACACCCAGTTGGGACGAGTGACCACAGGGATGCC ACACAGCTCGGATTTCAGCCTCTGATGTCAGATCTTGGGTCCACTGGCTCCACTGAGGGC TTCCCTCTTGGTGCCTCAGTTTCCTGACCTATGAAACAGAGAAAATAAAAGCACTTATTT

ATTGTTAAAAAAAAAAAAAA

Restriction Sites: ECoRI-NOT



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**ACCN:** NM\_000247 **Insert Size:** 1340 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 <a href="mailto:customer.com">customer.com</a> 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

**OTI Annotation:** The ORF of this clone has been fully sequenced and found to be a perfect match to

NM\_000247.1.

**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 000247.1, NP 000238.1

 RefSeq Size:
 1365 bp

 RefSeq ORF:
 1152 bp

 Locus ID:
 100507436

 UniProt ID:
 029983

 Cytogenetics:
 6p21.33

Domains: MHC\_I, IGc1



## **Gene Summary:**

This gene encodes the highly polymorphic major histocompatability complex class I chain-related protein A. The protein product is expressed on the cell surface, although unlike canonical class I molecules it does not seem to associate with beta-2-microglobulin. It is a ligand for the NKG2-D type II integral membrane protein receptor. The protein functions as a stress-induced antigen that is broadly recognized by intestinal epithelial gamma delta T cells. Variations in this gene have been associated with susceptibility to psoriasis 1 and psoriatic arthritis, and the shedding of MICA-related antibodies and ligands is involved in the progression from monoclonal gammopathy of undetermined significance to multiple myeloma. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Jan 2014]

Transcript Variant: This variant (1\*001, also known as 1) is derived from the MICA\*001 allele. It encodes the longest isoform (1). The MICA\*001 allele is found in the c6\_QBL (ALT\_REF\_LOCI\_6) alternate assembly.