

## Product datasheet for **SC302224**

### MRP5 (ABCC5) (NM\_001023587) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MRP5 (ABCC5) (NM_001023587) Human Untagged Clone
Tag:	Tag Free
Symbol:	MRP5
Synonyms:	ABC33; EST277145; MOAT-C; MOATC; MRP5; pABC11; SMRP
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_001023587 edited GAACCTCCACTCAGAGAAGATGAAGGATATCGACATAGGAAAAGATATATCATCCCCGAG TCCTGGGTATAGAAGTGTGAGGGAGAGAACCAGCACTTCTGGGACGCACAGAGACCGTGA AGATTCCAAGTTCAGGAGAACTCGACCGTTGGAATGCCAAGATGCCTTGAAACAGCAGC CCGAGCCGAGGGCCTCTCTTTGATGCCTCCATGCATTCTCAGCTCAGAATCCTGGATGA GGAGCATCCCAAGGAAAGTACCATCATGGCTTGAGTGCTCTGAAGCCATCCGGACTAC TTCCAAACACCAGCACCCAGTGGACAATGCTGGGCTTTTTCTGTATGACTTTTTCTGTG GCTTTCTCTCTGGCCCGTGTGGCCACAAGAAGGGGAGCTCTCAATGGAAGACGTGTG GTCTCTGTCCAAGCACGAGTCTTCTGACGTGAAGTGCAGAAGACTAGAGAGACTGTGGCA AGAAGAGCTGAATGAAGTTGGCCAGACGCTGCTCCCTGCGAAGGGTTGTGTGGATCTT CTGCCGACCAGGCTCATCCTGTCCATCGTGTGCCTGATGATCACGCAGCTGGCTGGCTT CAGTGGACCAATTTTCAGGATGGCTGTATTCTGCGGTCAGAATGA
Restriction Sites:	Please inquire
ACCN:	NM_001023587
Insert Size:	600 bp



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**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](mailto: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](#)

**OTI Annotation:** The ORF of this clone has been fully sequenced and found to be a perfect match to NM\_001023587.1.

**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\\_001023587.1](#), [NP\\_001018881.1](#)

**RefSeq Size:** 2007 bp

**RefSeq ORF:** 627 bp

**Locus ID:** 10057

**UniProt ID:** [O15440](#)

**Cytogenetics:** 3q27.1

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** ABC transporters

**Gene Summary:**

The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily which is involved in multi-drug resistance. This protein functions in the cellular export of its substrate, cyclic nucleotides. This export contributes to the degradation of phosphodiesterases and possibly an elimination pathway for cyclic nucleotides. Studies show that this protein provides resistance to thiopurine anticancer drugs, 6-mercaptopurine and thioguanine, and the anti-HIV drug 9-(2-phosphonylmethoxyethyl)adenine. This protein may be involved in resistance to thiopurines in acute lymphoblastic leukemia and antiretroviral nucleoside analogs in HIV-infected patients. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2016]

Transcript Variant: This variant (2) lacks several exons and contains an alternate 3' structure, compared to variant 1. It encodes isoform 2 which is shorter and has a distinct C-terminus, compared to isoform 1.