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Product datasheet for MR205396

Arg2 (NM_009705) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arg2 (NM_009705) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arg2
Synonyms:	AII; AU022422
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR205396 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTCCTGAGGAGCAGCGCCTCCCGTCTCCTCCACGGGCAAATTCCTTGCGTCCTGACGAGATCCGTCC
ACTCTGTAGCTATAGTCGGAGCCCCTTTCTCTCGGGGACAGAAGAAGCTAGGAGTGGAATATGGTCCAGC
TGCCATTCGAGAAGCTGGCTTGCTGAAGAGGCTCTCCAGGTTGGGATGCCACCTAAAAGACTTTGGAGAC
TTGAGTTTTACTAATGTCCCACAAGATAATCCCTACAATAATCTGGTTGTGTATCCTCGTTCAGTGGGCC
TTGCCAACCAGGAACTGGCTGAAGTGGTTAGTAGAGCTGTGTCAGGTGGCTACAGCTGTGTCACCATGGG
AGGAGACCACAGCCTGGCAATAGGTACCATTATCGGTCACGCCCGGCACCGCCCAGATCTCTGTGTCATC
TGGGTTGATGCTCATGCGGACATTAATACACCTCTCACCACTGTATCTGGAAATATACATGGACAGCCAC
TTTCCTTTCTCATCAAAGAACTACAAGACAAGGTACCACAACTGCCAGGATTTTCCTGGATCAAACCTTG
CCTCTCTCCCCCAAATATTGTGTACATTGGCCTGAGAGATGTGGAGCCTCCTGAACATTTTATTTTAAAG
AATTATGACATCCAGTATTTTTCCATGAGAGAGATTGATCGACTTGGGATCCAGAAGGTGATGGAACAGA
CATTTGATCGGCTGATTGGCAAAAGGCAGAGGCCAATCCACCTGAGTTTTGATATTGATGCATTTGACCC
TAAATTGGCTCCAGCCACAGGAACCCCTGTTGTAGGGGGATTAACCTACAGAGAAGGAGTGTATATTACT
GAAGAAATACATAATACAGGGTTGCTGTCAGCTCTGGATCTTGTTGAAGTCAATCCTCATTTGGCCACTT
CTGAGGAAGAGGCCAAGGCAACAGCCAGACTAGCAGTGGATGTGATTGCTTCAAGTTTTGGTCAGACAAG
AGAAGGAGGACACATTGTCTATGACCACCTTCCTACTCCTAGTTCACCACACGAATCAGAAAATGAAGAA
TGTGTGAGAATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

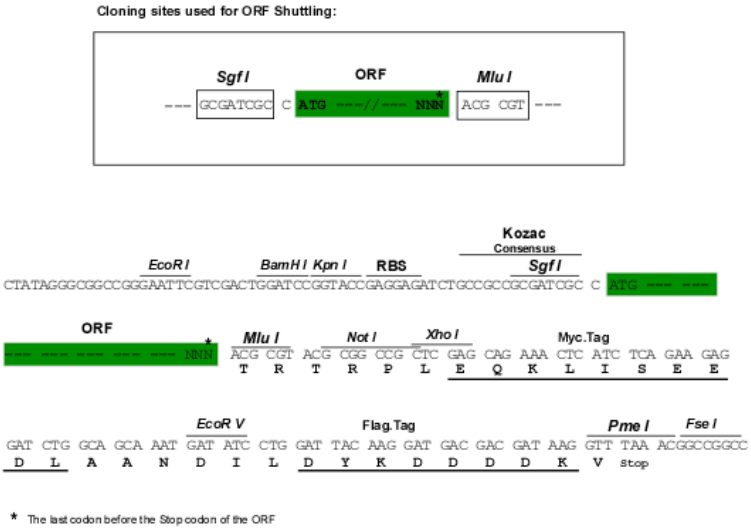
>MR205396 protein sequence
Red=Cloning site Green=Tags(s)

MFLRSSASRLLHGQIPCVLTRSVHSVAIVGAPFSRGQKKLGVEYGPAAIREAGLLKRLSRLGCHLKDFGD
LSFTNVPQDNPYNNLVVYPRSVGLANQELAEVVSRAVSGGYSCVTMGGDHSLAIGTIIGHARHRPDLCVI
WVDAHADINTPLTTVSGNIHGQPLSFLIKELQDKVPQLPGFSWIKPCLSPPNIVYIGLRDVEPPEHFILK
NYDIQYFSMREIDRLGIQKVMEQTFDRLIGKRQRPIHLSFDIDAFDPKLAPATGTPVVGGLTYREGVYIT
EEIHNTGLLSALDLVEVNPHLATSEEEAKATARLAVDVIASSFGQTREGGHIVYDHLPTPSSPHESENEE
CVRI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_009705

ORF Size: 1062 bp

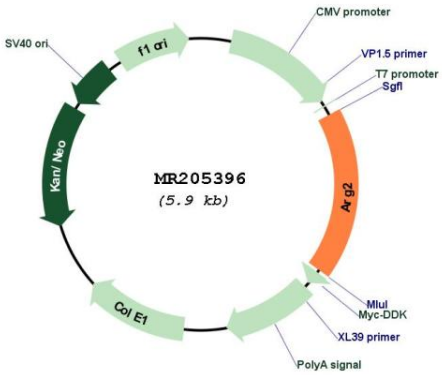
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_009705.1, NM_009705.2, NM_009705.3, NP_033835.1
RefSeq Size:	1417 bp
RefSeq ORF:	1065 bp
Locus ID:	11847
UniProt ID:	O08691
Cytogenetics:	12 C3
MW:	38.9 kDa
Gene Summary:	May play a role in the regulation of extra-urea cycle arginine metabolism and also in down-regulation of nitric oxide synthesis. Extrahepatic arginase functions to regulate L-arginine bioavailability to nitric oxid synthase (NOS). Arginine metabolism is a critical regulator of innate and adaptive immune responses. Seems to be involved in negative regulation of the survival capacity of activated CD4(+) and CD8(+) T cells (PubMed:27745970, PubMed:25009204). May suppress inflammation-related signaling in asthmatic airway epithelium (PubMed:27214549). May contribute to the immune evasion of H.pylori by restricting M1 macrophage activation and polyamine metabolism (PubMed:27074721). May play a role in promoting prenatal immune suppression (By similarity). Regulates RPS6KB1 signaling, which promotes endothelial cell senescence and inflammation and implicates NOS3/eNOS dysfunction (PubMed:22928666). Can inhibit endothelial autophagy independently of its enzymatic activity implicating mTORC2 signaling (PubMed:25484082). Involved in vascular smooth muscle cell senescence and apoptosis independently of its enzymatic activity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205396