

Product datasheet for **RC203809**

Methionine Aminopeptidase 2 (METAP2) (NM_006838) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Methionine Aminopeptidase 2 (METAP2) (NM_006838) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Methionine Aminopeptidase 2
Synonyms:	MAP2; MNPEP; p67eIF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203809 representing NM_006838
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGGGTGTGGAGGAGGTAGCGGCCTCCGGGAGCCACCTGAATGGCGACCTGGATCCAGACGACAGGG
 AAGAAGGAGCTGCCTCTACGGCTGAGGAAGCAGCCAAGAAAAAAGACGAAAGAAGAAGAAGAGCAAAGG
 GCCTTCTGCAGCAGGGGAACAGGAACCTGATAAAGAATCAGGAGCCTCAGTGGATGAAGTAGCAAGACAG
 TTGAAAGATCAGCATTGGAAGATAAAGAAAGAGATGAAGATGATGAAGATGGAGATGGCGATGGAGATG
 GAGCAACTGGAAGAAGAAGAAAAAGAAGAAGAAGAGAGGACCAAAAGTTCAAACAGACCCTCCCTC
 AGTTCCAATATGTGACCTGTATCCTAATGGTGTATTTCCAAAGGACAAGAATGCGAATACCCACCACA
 CAAGATGGGCGAACAGCTGCTTGGAGAACAAGTGAAGAAAAGAAAGCATTAGATCAGGCAAGTGAAG
 AGATTTGGAATGATTTTCGAGAAGCTGCAGAAGCACATCGACAAGTTAGAAAATACGTAATGAGCTGGAT
 CAAGCCTGGGATGACAATGATAGAAATCTGTGAAAAGTTGGAAGACTGTTACGCAAGTTAATAAAGAG
 AATGGATTAATGCAGGCCTGGCATTTCCTACTGGATGTTCTCTCAATAATTGTGCTGCCATTATACTC
 CCAATGCCGGTGACACAACAGTATTACAGTATGATGACATCTGTAATAAGACTTTGGAACACATATAAG
 TGGTAGGATTATTGACTGTGCTTTACTGTCACTTTTAATCCCAATATGATACGTTATTTAAAGCTGTA
 AAAGATGCTACTAACACTGGAATAAAGTGTGCTGGAATTGATGTTCTGCTGTGTGATGTTGGTGAGGCCA
 TCCAAGAAGTTATGGAGTCTATGAAGTTGAAATAGATGGGAAGACATATCAAGTGAACCAATCCGTAA
 TCTAAATGGACATTCAATTGGGCAATATAGAATACATGCTGGAACACAGTCCGATTGTGAAAGGAGGG
 GAGGCAACAAGAATGGAGGAAGGAGAAGTATATGCAATTGAAACCTTTGGTAGTACAGGAAAAGGTTTG
 TTCATGATGATATGGAATGTTACATTACATGAAAAATTTGATGTTGGACATGTGCCAATAAGGCTTCC
 AAGAACAACAACTTGTAAATGTCATCAATGAAAACCTTTGGAACCTTGCCTTCTGCCGAGATGGCTG
 GATCGCTTGGGAGAAAGTAAATCTTGTGCTCTGAAGAATCTGTGTGACTTGGCATTGTAGATCCAT
 ATCCACCATTATGTGACATTAAGGATCATATACAGCGCAATTTGAACATACCATCCTGTTGCGTCCAAC
 ATGTAAGAAGTTGTCAGCAGAGGAGATGACTAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203809 representing NM_006838
 Red=Cloning site Green=Tags(s)

MAGVEEVAASGSHLNGDLDPDDREEGAASTAEAAKKRRRKKKSKGPSAAGEQEPDKESGASVDEVARQ
 LERSALEDKERDEDEDGDGDGATGKKKKKKKKRGPVQTDPPSVPICDLYPNGVFPKGQECEYPPT
 QDGRATAWRTTSEEKALDQASEEINWDFREAAEAHRQVRKYVMSWIKPGMTMIEICEKLEDCSRKLIKE
 NGLNAGLAFPTGCSLNNCAAHYTPNAGDITVLQYDDICKIDFGTHISGRIIDCAFVTFNPKYDITLLKAV
 KDATNTGIKAGIDVRLCDVGEAIQEVMESEYEIDGKTYQVKPIRNLNGHSIGQYRIHAGKTVPIVKGG
 EATRMEEGEVYAIETFGSTGKGVVHDDMECSHYMKNFDVGHVPIRLPRTKHLLNVINENFTLAFRRWL
 DRLGESKYLKMLKNCGLGIVDPYPPLCDIKGSYTAQFEHTILLRPTCKEVVSRGDDY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2583_g01.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_006838

ORF Size: 1434 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.

RefSeq: [NM_006838.4](#)
RefSeq Size: 3506 bp

RefSeq ORF: 1437 bp

Locus ID: 10988

UniProt ID: [P50579](#)
Cytogenetics: 12q22

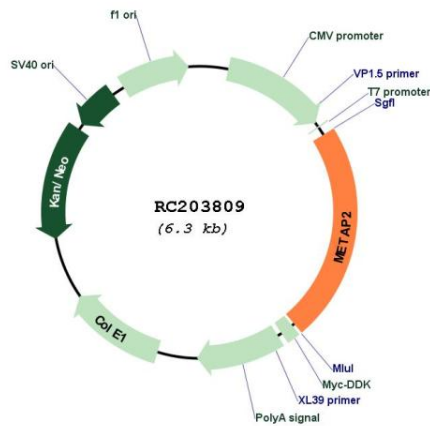
Domains: Peptidase_M24

Protein Families: Druggable Genome, Protease

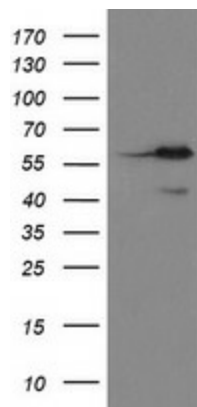
MW: 52.7 kDa

Gene Summary: The protein encoded by this gene is a member of the methionyl aminopeptidase family. The encoded protein functions both by protecting the alpha subunit of eukaryotic initiation factor 2 from inhibitory phosphorylation and by removing the amino-terminal methionine residue from nascent proteins. Increased expression of this gene is associated with various forms of cancer, and the anti-cancer drugs fumagillin and ovalicin inhibit the protein by irreversibly binding to its active site. Inhibitors of this gene have also been shown to be effective for the treatment of obesity. A pseudogene of this gene is located on chromosome 2. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2015]

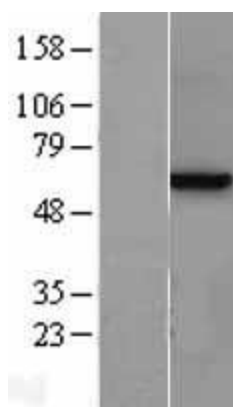
Product images:



Circular map for RC203809



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY METAP2 (Cat# RC203809, 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-METAP2 (Cat# [TA800289]). Positive lysates [LY402045] (100ug) and [LC402045] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402045]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203809 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).