

Product datasheet for RC209651

MAD4 (MXD4) (NM_006454) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAD4 (MXD4) (NM_006454) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAD4
Synonyms:	bHLHc12; MAD4; MST149; MSTP149
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209651 representing NM_006454 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGTACCTGGAGCGCAGGGATCGAGAGGCCG
AGCACGGCTACGCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGGAGAAAACAAGGCGCCGGCCT
GGTGGCAAGGCCCGAACACAGGTCTTCACACAACGAGCTAGAAAAGCACAGACGAGCCAACTCAGG
CTGTACCTTGAGCAGCTCAAGCACTGGTCCCTGGGCCCGACAGCACCCGCCACACCAGCTGAGCC
TCCTGAAGCGGGCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCATCAAGGA
GCAGCTGCAGCAGGAGCATCGTTTCCTGAAGCGGCGCCTGGAGCAGCTGTGGTGCAGAGCGTGGAGCGC
GTGGCCACAGATAGCACGGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCA
TGGAGTTTGGCCCTGGTGGAGCTGGACAGTGTGGCAGCAGCAGTACCGGACGACCACTACAGCCTGCA
GAGTGGCACCGGCGGCGACAGTGGCTTCGGGCCCACTGCCGGCGGCTGGGCCGCCCGCCCTCTCG

AG**CGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC209651 representing NM_006454 Red=Cloning site Green=Tags(s)
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MELNSLLILLEAAEYLERRDREAHEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLR
LYLEQLKQLVPLGPDSTRHTTLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVR
VRTDSTGSAVSTDDSEQVDIEGMEFGPGELDSVGSSSDADDHYSLSQSGTGGDSGFGPHCRRLGRPALS

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

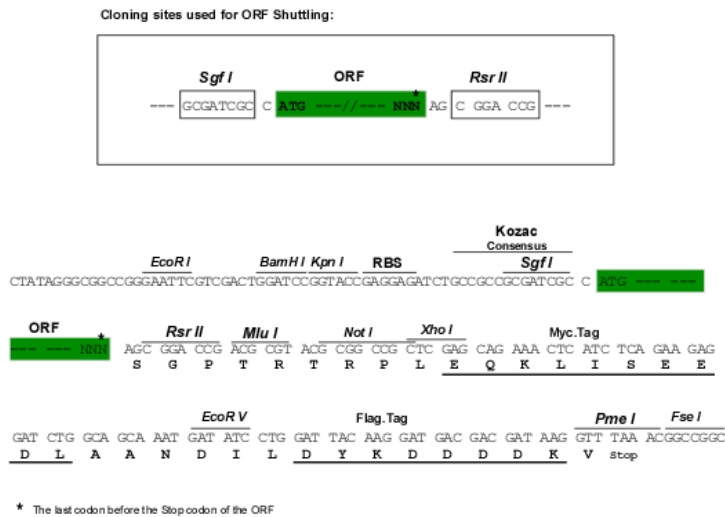


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Chromatograms: https://cdn.origene.com/chromatograms/mg2930_a11.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_006454

ORF Size: 627 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_006454.3](#)

RefSeq Size: 3773 bp

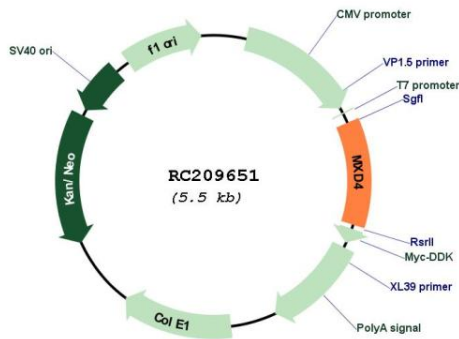
RefSeq ORF: 630 bp

Locus ID: 10608

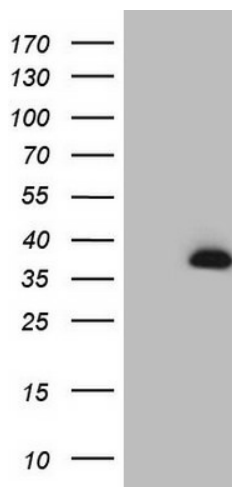
UniProt ID: [Q14582](#)
Cytogenetics: 4p16.3
Domains: HLH
Protein Families: Druggable Genome, Transcription Factors
MW: 23.3 kDa

Gene Summary: This gene is a member of the MAD gene family . The MAD genes encode basic helix-loop-helix-leucine zipper proteins that heterodimerize with MAX protein, forming a transcriptional repression complex. The MAD proteins compete for MAX binding with MYC, which heterodimerizes with MAX forming a transcriptional activation complex. Studies in rodents suggest that the MAD genes are tumor suppressors and contribute to the regulation of cell growth in differentiating tissues. [provided by RefSeq, Jul 2008]

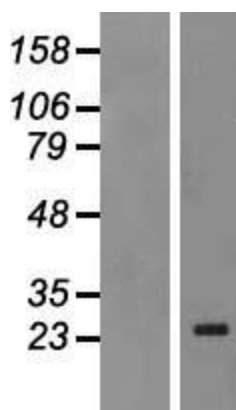
Product images:



Circular map for RC209651



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MXD4 (Cat# RC209651, 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-MXD4 (Cat# [TA808928])(1:2000). Positive lysates [LY416638] (100ug) and [LC416638] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416638]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209651 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).