

## Product datasheet for **RG233448**

### Mad (MXD1) (NM\_001202514) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mad (MXD1) (NM_001202514) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mad
Synonyms:	BHLHC58; MAD; MAD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG233448 representing NM_001202514 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGCGCGGTTCCGGATGAACATCCAGATGCTGCTGGAGGCGGCCGACTATCTGGAGCGCGGGAGA  
GAGAAGCTGAACATGGTTATGCCTCCATGTTACCATAACAATAACAAGGACAGAGATGCCTTAAAACGGAG  
GAACAAATCCAAAAGAATAACAGCAGTAGCAGACGGGCTCATCTTCGCTTGTGCCTGGAGAAGTTGAAG  
GGGCTGGTGCCACTTGGACCCGAATCAAGTCGACACACTACGTTGAGTTTATTAACAAAAGCCAAATTGC  
ACATAAAGAACTTGAAGATTGTGACAGAAAAGCCGTTACCAAATCGACCAGCTTCAGCGAGAGCAGCG  
ACACCTGAAGAGGAGCTGGAGAAGCTGGGCATTGAGAGGATCCGGATGGACAGCATCGGCTCCACCGTC  
TCCTCGGAGCGCTCCGACTCCGACAGGGAAGAAATCGACGTTGACGTGGAGAGCAGCGACTATCTCACAG  
GTGATCTGGACTGGAGCAGCAGCAGTGTGAGCGACTCTGACGAGCGGGCAGCATGCAGAGCCTCGGCAG  
TGATGAGGGCTATTCCAGCACCAGCATCAAGAGAATAAAGCTGCAGGACAGTCACAAGGCGTGTCTTGGT  
CTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG233448 representing NM\_001202514  
Red=Cloning site Green=Tags(s)

MAAAVRMNIQMLLEAADYLERREREAEHGYASMLPYNNKDRDALKRRNKSKKNNSSRRHLRLCLEKLG  
 GLVPLGPESRRHTL SLLTKAKLHIKKLEDCDRKAVHQIDQLQREQRHLKRQLEKLGIERIRMDSIGSTV  
 SSERSDSDREEIDVDVESTDYL TGDLDWSSSSVSDSDERGSMSQLGSDEGYSSTSIKRIKIQDQSHKACLG  
 L

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001202514

**ORF Size:** 633 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\\_001202514.1](#), [NP\\_001189443.1](#)

**RefSeq Size:** 5600 bp

**RefSeq ORF:** 636 bp

**Locus ID:** 4084

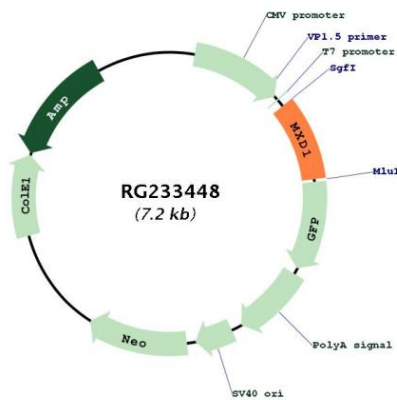
**UniProt ID:** [Q05195](#)

**Cytogenetics:** 2p13.3

**Protein Families:** Druggable Genome, Transcription Factors

**Gene Summary:** This gene encodes a member of the MYC/MAX/MAD network of basic helix-loop-helix leucine zipper transcription factors. The MYC/MAX/MAD transcription factors mediate cellular proliferation, differentiation and apoptosis. The encoded protein antagonizes MYC-mediated transcriptional activation of target genes by competing for the binding partner MAX and recruiting repressor complexes containing histone deacetylases. Mutations in this gene may play a role in acute leukemia, and the encoded protein is a potential tumor suppressor. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Feb 2011]

**Product images:**



Circular map for RG233448