

## Product datasheet for **MG206531**

### Yy1 (NM\_009537) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Yy1 (NM_009537) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Yy1
Synonyms:	AW488674; NF-E1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG206531 representing NM_009537 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTCGGGGACACCCTCTACATCGCCACGGACGGCTCGGAGATGCCGGCCGAGATCGTGGAGCTGC  
ATGAGATCGAGGTGGAGACCATCCCGTGGAGACCATCGAGACCACGGTGGTGGGCGAGGAGGAGGAGGA  
GGACGACGACGACGAGGACGGCGCGGGCGGACACGGCGGGCGGGGGCGGCCACGGGCACGCCGGC  
CACCACCATCACCACCACCACCACCACCACCACCACCACCACCCGCCATGATCGCGCTGCAGCCGCTGGTACGG  
ACGACCCGACCAAGTGCACCACCACCAGGAGGTGATCCTGGTGCAGACGCGGAGGAGGTGGTGGCGGG  
GGACGACTCGGACGGGCTGCGCGCCGAGGACGGCTTCGAGGACCAGATCCTCATCCCGTGGCCGCGCCG  
GCCGGCGGCGACGACGACTACATAGAGCAGACGCTGGTACCCGTGGCGGGCGCCGCAAGAGCGGGCGG  
GGGCTCGTGGGCGGGTTCGCGTGAAGAAGGGCGGGCAAGAAGAGCGGCAAGAAGATTACCTGGG  
CGGCGGGCGCGCGGGCGGGCGGGCGGGCGCCGACCCGGGAAATAAGAAGTGGGAGCAGAAGCAGGTG  
CAGATCAAGACCTGGAGGGCGAGTTCTCGTCCACCATGTGGTCCCGATGAAAAAAGATATTGACC  
ATGAAACAGTGGTGAAGAGCAGATCATTGGAGAGAACTCACCTCCTGATTATTCTGAATATATGACAGG  
CAAGAACTCCCTCCTGGAGGGATACCTGGCATTGACCTCTCAGACCCTAAGCAACTGGCAGAATTTGCC  
AGAATGAAGCCAAGAAAAATTAAGAAGATGATGCTCCAAGAACAATAGCTTGCCTCATAAAGGCTGCA  
CAAAGATGTTTCAGGGATAACTCTGCTATGAGAAAGCATCTGCACACCCACGGTCCAGAGTCCACGTCG  
TGACAGAGTGTGGCAAAGCGTTCTGTTGAGAGCTCAAAGCTAAAACGACACCAGCTGGTTTCATACTGGAGAA  
AAGCCCTTTCAGTGCACATTCGAAGGCTGCGGGAAGCGCTTTTCACTGGACTTCAATTTGCGCACACATG  
TGCGAATCCATACCGGAGACAGGCCCTATGTGTGCCCTTCGACGGTTGTAATAAGAAGTTTGCTCAGTC  
AACTAACCTGAAATCTCACATCTTAACACACGCTAAAGCCAAAAACAACCAG

**ACGGTACGGGCGGCTCGAG** - GFP Tag - GTTTAA



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Protein Sequence: >MG206531 representing NM\_009537  
 Red=Cloning site Green=Tags(s)

MASGDTLYIATDGSEMPAEIVELHEIEVETIPVETIETTIVVGEEDDDDEDDGGGGDGGGGGGHGHAG  
 HHHHHHHHHHPPMIALQPLVTDPTQVHHHVEVILVQTREEVVGDDSDGLRAEDGFEDQILIPVPAP  
 AGDDDDYIEQTLVTVAAGKSGGGASSGGGRVKKGGGKSGKSYLGGGAGAAGGGADPGNKKWEQKQV  
 QIKTLEGEFSVTMWSSDEKKDIDHETVVEEQIIGENSPDYSEYMTGKKLPPGGIPGIDLSDPKQLAEFA  
 RMKPRKIKEDDAPRTIACPHKGCTKMFDRNSAMRKHHLHTHGPRVHVCAECGKAFVSSKLRHQLVHTGE  
 KPFQCTFEGCGKRFSLDFNLRTHVRIHTGDRPYVCPFDGCNKKFAQSTNLKSHILTHAKAKNNQ

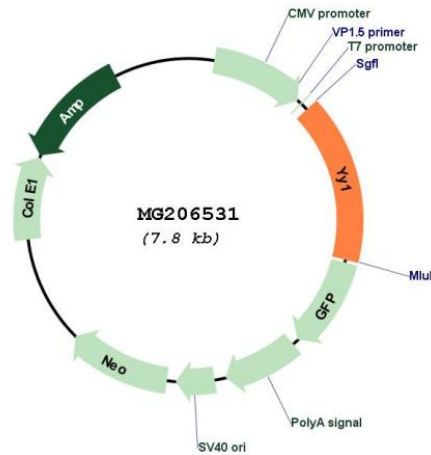
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_009537

<b>ORF Size:</b>	1242 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_009537.4</a>
<b>RefSeq Size:</b>	2324 bp
<b>RefSeq ORF:</b>	1245 bp
<b>Locus ID:</b>	22632
<b>UniProt ID:</b>	<a href="#">Q00899</a>
<b>Cytogenetics:</b>	12 59.58 cM

**Gene Summary:**

Multifunctional transcription factor that exhibits positive and negative control on a large number of cellular and viral genes by binding to sites overlapping the transcription start site. Binds to the consensus sequence 5'-CCGCCATNTT-3'; some genes have been shown to contain a longer binding motif allowing enhanced binding; the initial CG dinucleotide can be methylated greatly reducing the binding affinity. The effect on transcription regulation is depending upon the context in which it binds and diverse mechanisms of action include direct activation or repression, indirect activation or repression via cofactor recruitment, or activation or repression by disruption of binding sites or conformational DNA changes. Its activity is regulated by transcription factors and cytoplasmic proteins that have been shown to abrogate or completely inhibit YY1-mediated activation or repression. Binds to the upstream conserved region (UCR) (5'-CGCCATTTT-3') of Moloney murine leukemia virus (MuLV). Acts synergistically with the SMAD1 and SMAD4 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (PubMed:15329343). Binds to SMAD binding elements (SBEs) (5'-GTCT/AGAC-3') within BMP response element (BMPRE) of cardiac activating regions (PubMed:15329343). Proposed to recruit the PRC2/EED-EZH2 complex to target genes that are transcriptional repressed. Involved in DNA repair. In vitro, binds to DNA recombination intermediate structures (Holliday junctions). Involved in spermatogenesis and may play a role in meiotic DNA double-strand break repair. Plays a role in regulating enhancer activation (By similarity).[UniProtKB/Swiss-Prot Function]