

## Product datasheet for MR205008

### TxnI2 (BC033506) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TxnI2 (BC033506) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TxnI2
Synonyms:	PICOT; TxnI2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205008 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGCGGGGGCGGCCGAGGCCAGGCCAGCCGTGGCAGTGGTGGAAAGTCGGCTCTGCCAGCAGT  
TTGAAGAGCTACTGCGCCTCAAACCAAGTCACCTCTTGTGGTTCATTTCTGGGCACCATGGGCTCCACA  
GTGTGTACAGATGAACGATGTGCATGGCAGAGTTAGCTAAAGAACCCTCATGTTTCATTTGTGAAGCTG  
GAAGCCGAAGCTGTTCTGAAGTATCTGAAAAATGAAATTAGCTCTGTCCCCACCTTCTGTTCTTCA  
AGAATTCTCAGAAAGTCGACCGTTAGATGGTGCACATGCCCCAGAGTTGACCAAAAAAGTCCAGCGACA  
CGTGTCTAGCGGAGCCTTCTCTCTAGTACTAATGAACATCTTAAAGAAGACCTCAGCCTTCGCCTGAAA  
AAGCTGACTCACGCTGCCCCCTGCATGCTGTTCAATGAAGGGAACACCTCAAGAACCAGCGCTGTGGTTTCA  
GCAAGCAGATGGTGGAAATCCTTCACAAACACAATATTCAGTTCAGCAGCTTTGATATCTTCTCAGATGA  
AGAAGTTGCAGAGGGGCTCAAACGTAATTAAGGAGCTGGAAGCATCAGAAGAGCTGGACACGATCTGCCAAAG  
CACCCAAGTTAGAGGAAAGGCTCAAAGTGTGACCAATAAAGCTCCGTGATGCTCTTTATGAAAGGAAA  
CAAACAGGAAGCAAAATGTGGATTCAGCAAAACAATTCTGGAAACTGAATAGTACTGGGTTGAATAT  
GAAACTTTTGATATACTGGAAGATGAAGAAGTGGTCAGGGATTAAAAACGTTCTCAAATTGGCCAACT  
ACCCTCAGCTGTATGTGAGAGGGGATCTTGTGGAGGATTGGATATTGTCAAGGAAGTCAAAGACAACGG  
TGAAATGCTGCCTATACTGAAAGGAGAAAAAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205008 protein sequence  
Red=Cloning site Green=Tags(s)

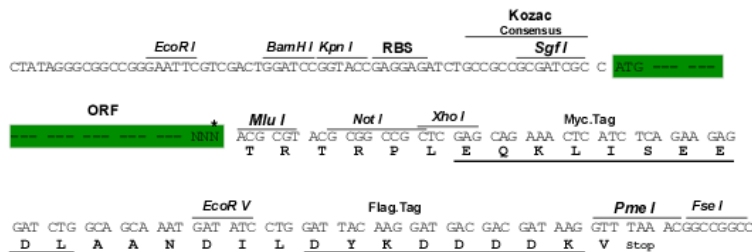
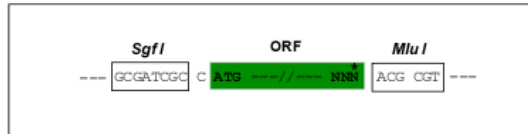
MAAGAAEAGEAAVAVVEVGSAAQQFEELLRLKTKSLLVVHFWAPWAPQCVQMNDVMAELAKEHPHVSFVKL  
 EAEAVPEVSEKYEISSVPTFLFFKNSQKVDRLDGAHAPELTKKVQRHVSSGAFPPSTNEHLKEDLSRLK  
 KLTHAAPCMLFMKGTPEPRCGFSKQMV EILHKHNIQFSSFDIFSDEEVRQGLKTYSNWPYPQLVYSGE  
 LIGGLDIIKELEASEELDTICPKAPKLEERLKVLTNKASVMLFMKGNKQEAKCGFSKQILEILNSTGVEY  
 ETFDILEDEEVRQGLKTFSNWPYPQLYVRGDLVGGLDIVKELKDN GELLPIKGEN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** BC033506

**ORF Size:** 1011 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:** [BC033506](#), [AAH33506](#)

**RefSeq Size:** 1260 bp

**RefSeq ORF:** 1013 bp

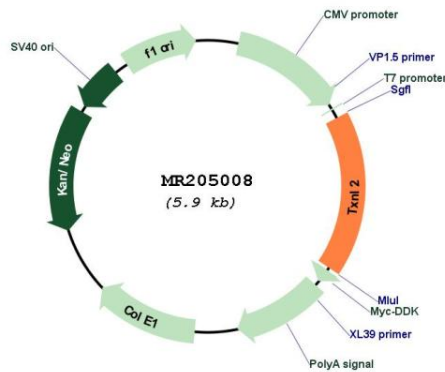
**Locus ID:** 30926

**Cytogenetics:** 7 F4

**MW:** 37.8 kDa

**Gene Summary:** Together with BOLA2, acts as a cytosolic iron-sulfur (Fe-S) cluster assembly factor that facilitates [2Fe-2S] cluster insertion into a subset of cytosolic proteins (By similarity). Acts as a critical negative regulator of cardiac hypertrophy and a positive inotropic regulator (PubMed:16809552, PubMed:18258855, PubMed:18929570). Required for hemoglobin maturation. Does not possess any thioredoxin activity since it lacks the conserved motif that is essential for catalytic activity (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR205008