

Product datasheet for MR214444

Thoc2 (NM_001033422) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Thoc2 (NM_001033422) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Thoc2
Synonyms: 6330441O12Rik; D130005M13Rik; Gm1139; Gm1793; Tho2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR214444 representing NM_001033422
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

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 TTTTACATTTATGCCGATTCTCAGTGAAAATAAAGCCATGACAGTTCGACCTACAGAGATTTTCAACA
 AGCTCTGTATGAGTTGTCATACCATGTCATTAAGGGAATTTAAAGCACGAACAGGCATCTAGTGTCTT
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Protein Sequence: >MR214444 representing NM_001033422
 Red=Cloning site Green=Tags(s)

MAAAVVVPAEWIKNWEKSGRGEFLHLCRILSENKSHDSSTYRDFQQALYELSYHVIKGNLKHEQASSVL
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 FKKEEKAKDEKFKTTVPIVEKSTQEREREKPSRERDVAKEMKSKENVKGGKEKTPVSGSLKSPVPRSDI
 SEPDREQRRKIDSHPSPSHSSTVKDSLIDLKSSAKLYINHNPPPLSKSKEREMDKDLKSRERSRER
 EKKDEKDRKERKRDHNSNDREVPPDITKRRKEENGTMGVSKHKSESPCE SQYPNEKDKENKSKSSGKEK
 SSSDSFKSEKMDKISSGGKESRHDKEKIEKKEKRDSSGGKEEKHHKSSDKHR

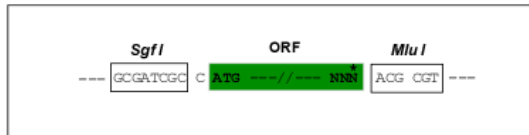
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

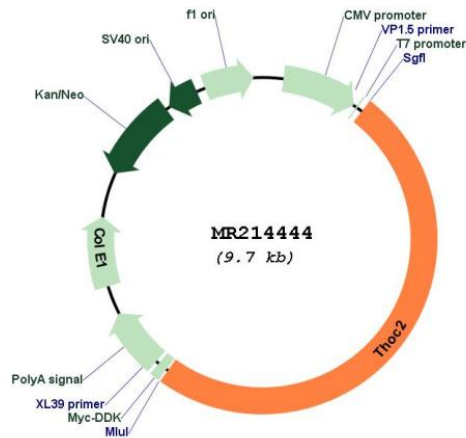
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001033422

ORF Size: 4782 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_001033422.1](#), [NP_001028594.1](#)

RefSeq Size: 7631 bp

RefSeq ORF: 4785 bp

Locus ID: 331401

UniProt ID: [B1AZI6](#)

Cytogenetics: X A4

MW: 183.2 kDa

Gene Summary: Required for efficient export of polyadenylated RNA and spliced mRNA. Acts as component of the THO subcomplex of the TREX complex which is thought to couple mRNA transcription, processing and nuclear export, and which specifically associates with spliced mRNA and not with unspliced pre-mRNA. TREX is recruited to spliced mRNAs by a transcription-independent mechanism, binds to mRNA upstream of the exon-junction complex (EJC) and is recruited in a splicing- and cap-dependent manner to a region near the 5' end of the mRNA where it functions in mRNA export to the cytoplasm via the TAP/NFX1 pathway. Plays a role for proper neuronal development.[UniProtKB/Swiss-Prot Function]