

## Product datasheet for MC209512

### Alyref (NM\_011568) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Alyref (NM_011568) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Alyref
Synonyms:	ALY; Aly; REF1; Ref1; Ref1-l; Refbp1; Tho4; Thoc4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC209512 representing NM_011568 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGACAAAATGGACATGTCTTTGGACGACATCATTAAAGCTGAACCGGAGCCAGCGAGGAGGCCGCG  
GCGGGGGCCGGGTGCGGCAGGGCCGGCTCCAGGGCGGCCGCGGCGCGCAGTGCAGGCCGCCGCGCG  
GGTGAATCGAGGCGCGGGCCTATGAGGAACCGCCCGCCATCGCCGCGGCGCCGAGGCGGCGGCGAGG  
AACCGGCCGCGCCGTACAGCAGACCGAAACAATTCCCGACAAATGGCAGCACGACCTCTTCGACAGCG  
GCTTCGGGGTGGAGCCGCGTGGAGACCGCGGGAAGCTGCTGGTGCCAACCTGGACTTCGGAGTGTC  
AGATGCTGATATTCAGGAATCTTTGCTGAATTTGGGACATTGAAAAAGCTGCTGTGCACTATGATCGC  
TCTGGACGAAGTTTAGGGACAGCAGATGTGCATTTGAACGGAAGCAGATGCCCTGAAGGCTATGAAAC  
AGTACAATGGTGTCCCTTTGGATGGCCGCCCTATGAACATCCAGCTTGTCACATCACAGATTGATACACA  
GCGAAGACCTGCACAGACATAAACAGAGGCGGCATGACAAGAAACCGTGGCTCTGGAGGTTTTGGTGGT  
GGTGGCACCAGGAGGGACACGTGGAGGCAGCCGGGAAGAGGTAGAGGCACCGGCAGGAACCTCAAAGC  
AGCAGCTTTCTGCAGAGGAGTTGGACGCACAGCTGGATGCTTACAATGCAAGGATGGACACCAGC**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_011568
Insert Size:	768 bp


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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_011568.1, NP_035698.1</u>
<b>RefSeq Size:</b>	1132 bp
<b>RefSeq ORF:</b>	768 bp
<b>Locus ID:</b>	21681
<b>UniProt ID:</b>	<u>O08583</u>
<b>Cytogenetics:</b>	11 E2
<b>Gene Summary:</b>	Export adapter involved in nuclear export of spliced and unspliced mRNA. Binds mRNA which is thought to be transferred to the NXF1-NXT1 heterodimer for export (TAP/NFX1 pathway). Component of the TREX complex which is thought to couple mRNA transcription, processing and nuclear export, and 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. TREX recruitment occurs via an interaction between ALYREF/THOC4 and the cap-binding protein NCBP1. Required for TREX complex assembly and for linking DDX39B to the cap-binding complex (CBC). In conjunction with THOC5 functions in NXF1-NXT1 mediated nuclear export of HSP70 mRNA; both proteins enhance the RNA binding activity of NXF1 and are required for NXF1 localization to the nuclear rim. Involved in the nuclear export of intronless mRNA; proposed to be recruited to intronless mRNA by ATP-bound DDX39B. Involved in transcription elongation and genome stability.[UniProtKB/Swiss-Prot Function]