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Product datasheet for MR220236

Alyref (NM_011568) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alyref (NM_011568) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alyref
Synonyms:	ALY; Aly; REF1; Ref1; Ref1-I; Refbp1; Tho4; Thoc4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR220236 representing NM_011568
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGACAAAATGGACATGTCTTTGGACGACATCATTAAGCTGAACCGGAGCCAGCGAGGAGGCCGCG
GCGGGGGCCGGGGTCGCGGCAGGGCCGGCTCCCAGGGCGGCCGCGGCGGCGCAGTGCAGGCCGCCGCGCG
GGTGAATCGAGGCGGCGGGCCTATGAGGAACCGGCCCGCCATCGCCCGCGGCGCCGCAGGCGGCGGCAGG
AACCGGCCGGCGCCGTACAGCAGACCGAAACAACTTCCCGACAAATGGCAGCACGACCTCTTCGACAGCG
GCTTCGGGGGTGGAGCCGGCGTGGAGACGGGCGGGAAGCTGCTGGTGTCCAACCTGGACTTCGGAGTGTC
AGATGCTGATATTCAGGAACTCTTTGCTGAATTTGGGACATTGAAAAAAGCTGCTGTGCACTATGATCGC
TCTGGACGAAGTTTAGGGACAGCAGATGTGCACTTTGAACGGAAAGCAGATGCCCTGAAGGCTATGAAAC
AGTACAATGGTGTCCCTTTGGATGGCCGCCCTATGAACATCCAGCTTGTCACATCACAGATTGATACACA
GCGAAGACCTGCACAGAGCATAAACAGAGGCGGCATGACAAGAAACCGTGGCTCTGGAGGTTTTGGTGGT
GGTGGCACCAGGAGAGGGACACGTGGAGGCAGCCGGGGAAGAGGTAGAGGCACCGGCAGGAACTCAAAGC
AGCAGCTTTCTGCAGAGGAGTTGGACGCACAGCTGGATGCTTACAATGCAAGGATGGACACCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>MR220236 representing NM_011568
Red=Cloning site Green=Tags(s)

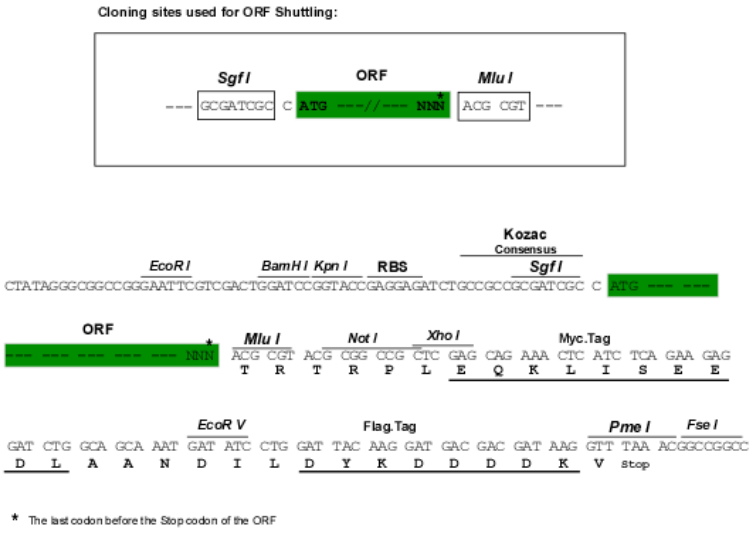
MADKMDMSLDDIIKLNRSQRGGRGGGRGRGRAGSQGGRGGAVQAAARVNRGGGPMRNRPAIARGAAGGGR
NRPAPYSRPKQLPDKWQHDLFDSGFGGGAGVETGGKLLVSNLDFGVSDADIQELFAEFGTLKKAAVHYDR
SGRSLGTADVHFERKADALKAMKQYNGVPLDGRPMNIQLVTSQIDTQRRPAQSINRGGMTRNRGSGGFGG
GGTRRGTRGGSRGRGRGTGRNSKQQLSAEELDAQLDAYNARMDTS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN:

NM_011568

ORF Size:

765 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:

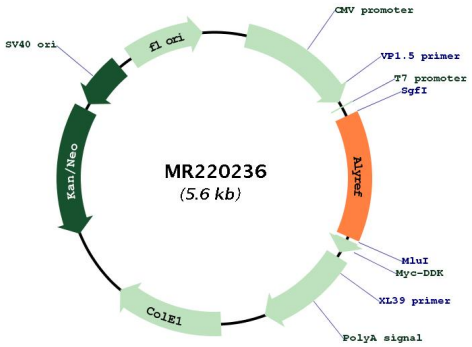
This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_011568.1, NP_035698.1
RefSeq Size:	1132 bp
RefSeq ORF:	768 bp
Locus ID:	21681
UniProt ID:	O08583
Cytogenetics:	11 E2
MW:	26.9 kDa
Gene Summary:	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]

Product images:



Circular map for MR220236