

Product datasheet for RC224459

ALX4 (NM_021926) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ALX4 (NM_021926) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ALX4
Synonyms: CRS5; FND2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC224459 representing NM_021926
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAATGCTGAGACTTGCCTCTTACTGCGAGTCGCCGGCCGCTGCCATGGACGCCTACTACAGCCGG
 TGTCGCAGAGTCGGGAGGGCTCGTCGCCTTTAGGGCATTCCCGGAGGCGACAAGTTCGGCACAACCTT
 CCTGTCGGCCGCCCAAAGCACAGGGATTTCGGGACGCCAAGAGCCGGGCCGTTACGGCGCTGGGCAG
 CAGGACCTGGCGACACCCTGGAGAGTGGAGCTGGGGCGGGGGCTCTTTAAACAAGTTCAGCCCCAGC
 CGTCGACCCCGCAGCCCCAGCCCGCCGAGCCGCAGCCGAGCAGCAGCAGCCGAGCCCCAGCCGCC
 CGCGCAACCGCATCTTTACTTGCAGCGAGGCGCCTGCAAGACGCCCCCGACGGCAGCCTCAAATCCAG
 GAAGGCAGCAGCGCCACAGCGCGCCTTGCAGGTTCCCTGCTACGCTAAAGAGAGCTCCCTGGGTGAGC
 CAGAGTTACCCCTGACTCTGACTGTGGGATGGACAGCAGCTACCTGAGTGTCAAGGAGGCTGGGGT
 GAAGGGGCCCCAGGACCGGGCCAGCTCAGACCTCCCCAGCCATTGGAGAAGGCCGACTCAGAGAGCAAC
 AAGGGCAAGAAGCGGGGAACCGGACCCTTACCAGCTACCAGCTGGAGGAGCTGGAGAAGGTCTTCC
 AGAAGACCCACTACCCAGACGTGTATGCGCGGGAACAGCTGGCCATGAGGACAGACCTACTGAGGCCCG
 CGTGCAGGTCTGGTCCAGAACCGAAGGGCCAAGTGGAGGAAGCGGGAGCGTTTTGGGCAGATGCAGCAG
 GTTCGAACCCACTTCTCCACTGCATATGAGCTGCCCTCCTACCCGAGCTGAGAACTACGCCAGATT
 AGAACCCGTCCTGGCTCGGCAACAACGGGGCTGCCTCACCAGTCCAGCCTGCGTGGTCCCTTGCAGCC
 GGTGCCTGCCTGCATGTCCCTCATGCCACCCCTGGCTCTGGGGCCAGCAGGCTCACCGACTTCTG
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 GCCCAGGCTCAATGGCTACGAGCTCAACGGCGAGCCGGACCGCAAGACCTCGAGCATCGCGCCCTCCG
 CATGAAGCCAAGGAGCACAGTGCGCCATTTCTGGGCCACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC224459 representing NM_021926
Red=Cloning site Green=Tags(s)

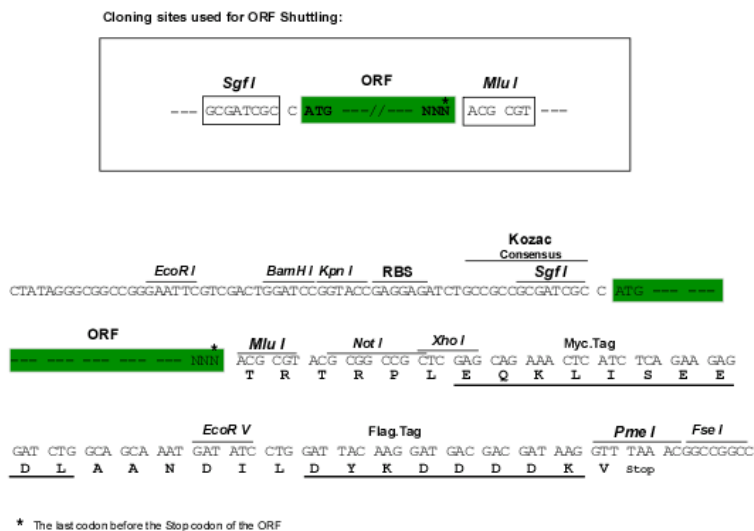
MNAETCVSYCESPAAAMDAYYSPVSQSREGSSPFRAFPGGDKFGTTFLSAAAKAQFGDAKSRARYGAGQ
 QDLATPLESGAGARGSFNKFQPPSTPQPQPPQPQPPQPPAQPPLYLQRGACKTPPDGSLKLQ
 EGSSGHSAALQVPCYAKESSLGEPPELPPDSDTVGMDSYLVKAEAGVKGPQDRASSDLPSPLEKADSESN
 KGKKRRNRRTTFTSYQLEELEKVFQKTHYPDVYAREQLAMRTDLTEARVQVWFQNRRAKWRKRERFGQMQQ
 VRTHFSTAYELPLLTRAENYAQIQNPSWLGNGGAASPVVPCDPVPACMSPHAHPPGSGASSVDFL
 SVSGAGSHVGQTHMGSFLGAASLSPGLNGYELNGEPDRKTSSIAALRMKAKEHSAAISWAT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6506_e08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021926

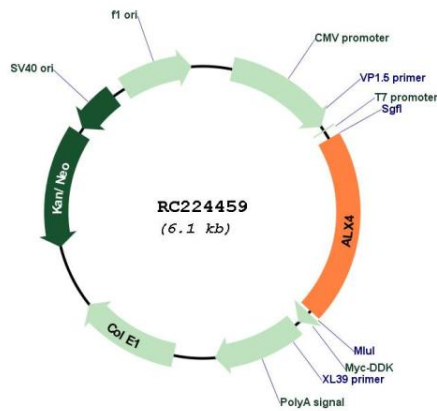
ORF Size: 1233 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

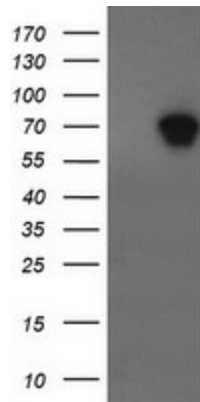
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<ol style="list-style-type: none">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:	<u>NM_021926.4</u>
RefSeq Size:	1586 bp
RefSeq ORF:	1236 bp
Locus ID:	60529
UniProt ID:	<u>Q9H161</u>
Cytogenetics:	11p11.2
Protein Families:	Druggable Genome
MW:	44.1 kDa
Gene Summary:	<p>This gene encodes a paired-like homeodomain transcription factor expressed in the mesenchyme of developing bones, limbs, hair, teeth, and mammary tissue. Mutations in this gene cause parietal foramina 2 (PFM2); an autosomal dominant disease characterized by deficient ossification of the parietal bones. Mutations in this gene also cause a form of frontonasal dysplasia with alopecia and hypogonadism; suggesting a role for this gene in craniofacial development, mesenchymal-epithelial communication, and hair follicle development. Deletion of a segment of chromosome 11 containing this gene, del(11)(p11p12), causes Potocki-Shaffer syndrome (PSS); a syndrome characterized by craniofacial anomalies, cognitive disability, multiple exostoses, and genital abnormalities in males. In mouse, this gene has been shown to use dual translation initiation sites located 16 codons apart. [provided by RefSeq, Oct 2009]</p>

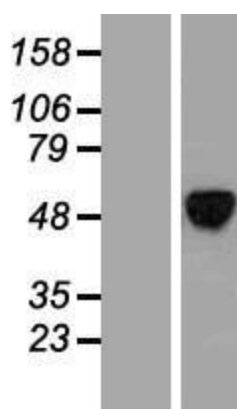
Product images:



Circular map for RC224459



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALX4 (Cat# RC224459, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALX4 (Cat# [TA505173]). Positive lysates [LY411892] (100ug) and [LC411892] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY411892]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224459 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).