

## Product datasheet for **RG224459**

### ALX4 (NM\_021926) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ALX4 (NM\_021926) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** ALX4  
**Synonyms:** CRS5; FND2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG224459 representing NM\_021926  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAATGCTGAGACTTGCCTCTTACTGCGAGTCGCCGGCCGCTGCCATGGACGCCTACTACAGCCCGG  
 TGTCGCAGAGTCGGGAGGGCTCGTCGCCTTTTAGGGCATTCCCGGAGGCGACAAGTTCGGCACAACCTTT  
 CCTGTCGGCCGCCCAAAGCACAGGGATTTCGGGGACGCCAAGAGCCGGGCCGTTACGGCGCTGGGCAG  
 CAGGACCTGGCGACACCCTGGAGAGTGGAGCTGGGGCGCGGGCTCCTTAACAAGTTCAGCCCCAGC  
 CGTCGACCCCGCAGCCCCAGCCCGCCGAGCCGCAGCCGAGCAGCAGCAGCCGAGCCCCAGCCGCC  
 CGCGCAACCGCATCTTTACTTGCAGCGAGGCGCCTGCAAGACGCCCCCGACGGCAGCCTCAAATCCAG  
 GAAGGCAGCAGCGCCACAGCGCGCCTTGCAGGTTCCCTGCTACGCTAAAGAGAGCTCCCTGGGTGAGC  
 CAGAGTTACCCCTGACTCTGACACTGTGGGATGGACAGCAGCTACCTGAGTGTCAAGGAGGCTGGGGT  
 GAAGGGGCCCCAGGACCGGGCCAGCTCAGACCTCCCCAGCCATTGGAGAAGGCCGACTCAGAGAGCAAC  
 AAGGGCAAGAAGCGGGGAACCGGACCCTTCACCAGCTACCAGCTGGAGGAGCTGGAGAAGGTCTTCC  
 AGAAGACCCACTACCCAGACGTGTATGCGCGGGAACAGCTGGCCATGAGGACAGACCTCACTGAGGCCCG  
 CGTGCAGGTCTGGTCCAGAACCGAAGGGCCAAGTGGAGGAAGCGGGAGCGTTTTGGGCAGATGCAGCAG  
 GTTCGAACCCACTTCTCCACTGCATATGAGCTGCCCTCCTCACCCGAGCTGAGAACTACGCCCAGATT  
 AGAACCCGTCCTGGCTCGCAACAACGGGGCTGCCTCACCAAGTCCAGCCTGCGTGGTCCCTGCGACCC  
 GGTGCCTGCCTGCATGTCCCCTCATGCCACCCCCCTGGCTCTGGGGCCAGCAGCGTCACCGACTTCCTG  
 AGTGTGTCTGGGCTGGCAGTCACGTGGCCAGACGCACATGGGCAGCCTGTTTGGAGCAGCCAGCCTCA  
 GCCCAGGCCTCAATGGCTACGAGCTCAACGGCGAGCCGGACCGCAAGACCTCGAGCATCGCGCCCTCCG  
 CATGAAGGCCAAGGAGCACAGTGCGGCCATTTCTGGGCCACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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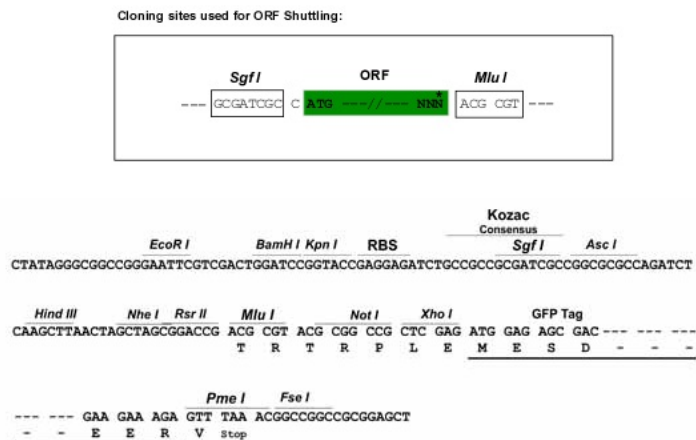
**Protein Sequence:** >RG224459 representing NM\_021926  
Red=Cloning site Green=Tags(s)

MNAETCVSYCESPAAAMDAYYSPVSQSREGSSPFRAFPGGDKFGTTFLSAAAKAQFGDAKSRARYGAGQ  
 QDLATPLESGAGARGSFNKFQPPSTPQPQPPQPQPPQPPAQPPLYLQRGACKTPPDGSLKLQ  
 EGSSGHSAAALQVPCYAKESLGEPELPPDSDTVGMDSSYL SVKEAGVKGPQDRASSDLPSPLEKADSESN  
 KGKKRRNRRTTFTSYQLEELEKVFQKTHYPDVYAREQLAMRTDL TEARVQVWFQNRRAKWRKRERFGQMQQ  
 VRTHFSTAYELPLLTRAENYAQIQNPSWLGNNGAASPVVPCDPVPCACMSPHAHPPGSGASSVTDLF  
 SVSGAGSHVQTHMGSFLGAASLSPGLNGYELNGEPDRKTSSIAALRMKAKEHSAAISWAT

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_021926

**ORF Size:** 1233 bp

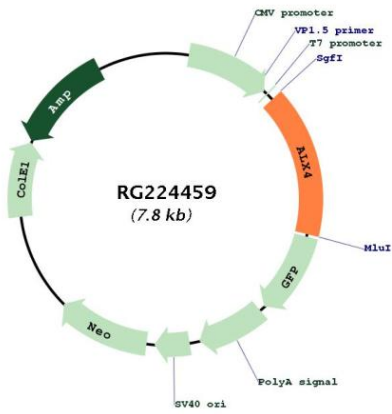
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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.

<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>RefSeq:</b>	<u>NM_021926.4</u>
<b>RefSeq Size:</b>	1586 bp
<b>RefSeq ORF:</b>	1236 bp
<b>Locus ID:</b>	60529
<b>UniProt ID:</b>	<u>Q9H161</u>
<b>Cytogenetics:</b>	11p11.2
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	<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 RG224459