

## Product datasheet for RC219221

### Aldehyde Oxidase (AOX1) (NM\_001159) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aldehyde Oxidase (AOX1) (NM_001159) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aldehyde Oxidase
Synonyms:	AO; AOH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219221 representing NM_001159 Red=Cloning site Blue=ORF Green=Tags(s)

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**Protein Sequence:** >RC219221 representing NM\_001159  
Red=Cloning site Green=Tags(s)

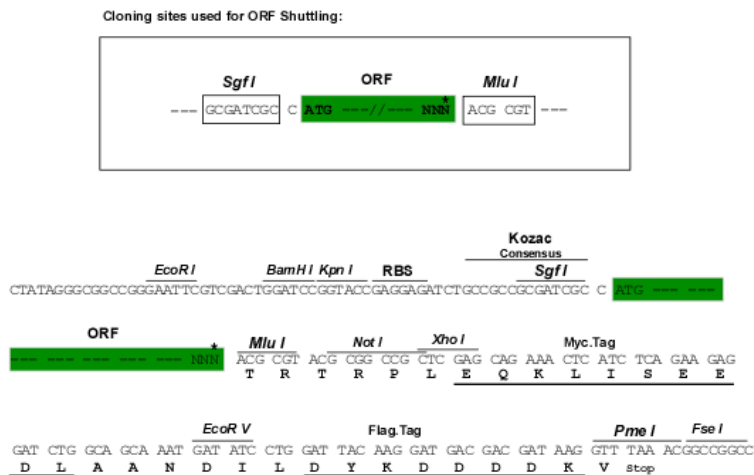
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6168\\_g12.zip](https://cdn.origene.com/chromatograms/mk6168_g12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



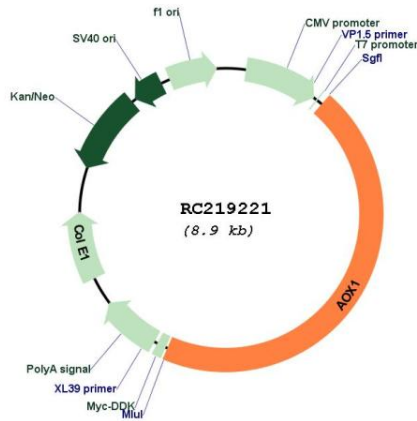
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001159

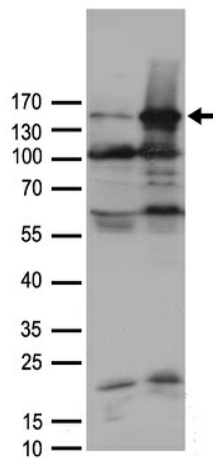
**ORF Size:** 4014 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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>	<a href="#">NM_001159.4</a>
<b>RefSeq Size:</b>	4949 bp
<b>RefSeq ORF:</b>	4017 bp
<b>Locus ID:</b>	316
<b>UniProt ID:</b>	<a href="#">Q06278</a>
<b>Cytogenetics:</b>	2q33.1
<b>Domains:</b>	Ald_Xan_dh_C, fer2, FAD_binding_5, fer2_2, CO_deh_flav_C
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Drug metabolism - cytochrome P450, Metabolic pathways, Nicotinate and nicotinamide metabolism, Tryptophan metabolism, Tyrosine metabolism, Valine, leucine and isoleucine degradation, Vitamin B6 metabolism
<b>MW:</b>	147.7 kDa
<b>Gene Summary:</b>	Aldehyde oxidase produces hydrogen peroxide and, under certain conditions, can catalyze the formation of superoxide. Aldehyde oxidase is a candidate gene for amyotrophic lateral sclerosis. [provided by RefSeq, Jul 2008]

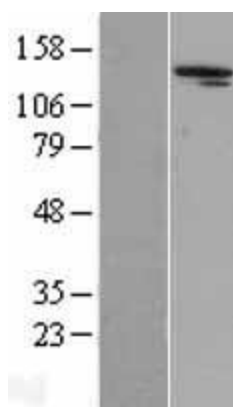
Product images:



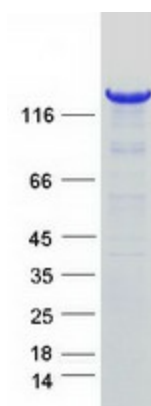
Circular map for RC219221



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY AOX1 (Cat# RC219221, 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-AOX1 antibody (Cat# [TA890040]). Positive lysates [LY400466] (100ug) and [LC400466] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400466]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219221 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AOX1 protein (Cat# [TP319221]). The protein was produced from HEK293T cells transfected with AOX1 cDNA clone (Cat# RC219221) using MegaTran 2.0 (Cat# [TT210002]).