

## Product datasheet for **RC221067**

### **ATOX1 (NM\_004045) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ATOX1 (NM\_004045) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** ATOX1  
**Synonyms:** ATX1; HAH1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC221067 representing NM\_004045  
**Red**=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

**ATGCCGAAGCAGAGTTCTCTGTGGACATGACCTGTGGAGGCTGTGCTGAAGCTGTCTCTCGGGTCTCA**  
**ATAAGCTTGGAGGAGTTAAGTATGACATTGACCTGCCAACAAGAAGGTCTGCATTGAATCTGAGCACAG**  
**CATGGACACTCTGCTTGAACCCCTGAAGAAAACAGGAAAGACTGTTTCCTACCTGGCCTTGAG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC221067 representing NM\_004045  
**Red**=Cloning site **Green**=Tags(s)

MPKHEFSVDMTCGGCAEAVSRVLNKLGGVKYDIDLPNKKVCIIESEHSMDTLLATLTKKTGKTVSYLGL

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6047\\_c05.zip](https://cdn.origene.com/chromatograms/mk6047_c05.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_004045

**ORF Size:** 204 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.

**RefSeq:** [NM\\_004045.4](#)

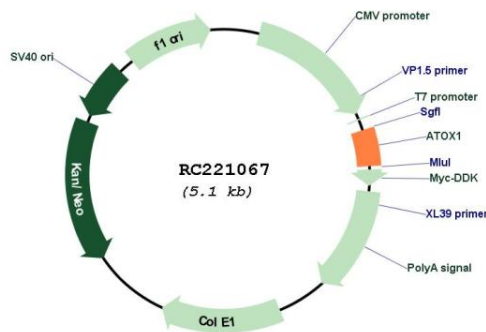
**RefSeq Size:** 498 bp

**RefSeq ORF:** 207 bp

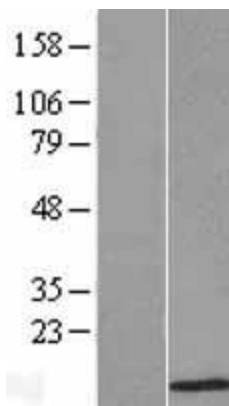
**Locus ID:** 475  
**UniProt ID:** [O00244](#)  
**Cytogenetics:** 5q33.1  
**Domains:** HMA  
**MW:** 7.2 kDa

**Gene Summary:** This gene encodes a copper chaperone that plays a role in copper homeostasis by binding and transporting cytosolic copper to ATPase proteins in the trans-Golgi network for later incorporation to the ceruloplasmin. This protein also functions as an antioxidant against superoxide and hydrogen peroxide, and therefore, may play a significant role in cancer carcinogenesis. Because of its cytogenetic location, this gene represents a candidate gene for 5q-syndrome. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC221067



Western blot validation of overexpression lysate (Cat# [LY418256]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221067 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).