

## Product datasheet for **RR211245**

### Gar1 (NM\_001024306) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Gar1 (NM\_001024306) Rat Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Gar1  
 Synonyms: Nola1  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >RR211245 representing NM\_001024306  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCTTCCGAGGCGGAGGTCGCGGAGGCTTTAATCGCGGTGGTGGAGGTGGAGGCTTCAATCGTGGCG  
 GCGGCAGCAACAACCACTCCGAGGGGGCGCGCGGTGGTGGCGGCGCGCAATTCAGGGCGGCGG  
 CCGAGGAGGATTTGGACGAGGGGCGGTCGTGGAGGCTTCAATAAATCCAAGATCAAGGGCCTCCAGAA  
 CGAGTCGTCTTATTAGGAGATTCATGCATCCCTGTGAAGATGACATCGTTTGTAAATGTACCACAGAAG  
 AAAACAAGGTGCCTTACTTCAATGCTCCTGTTTATTTAGAAAACAAGAACAATCGGAAAGTGGATGA  
 AATATTTGGACAACCTTAGAGATTTTATTTTCAGTTAAATTGTCAGAAAACATGAAGGCATCTTCTTTT  
 AAAAAGCTACAGAAGTTTACATAGACCCATATAAGCTGCTGCCACTGCAGAGGTTTCTGCCTCGGCCTC  
 CTGGTGAGAAAGGACCTCCCAGAGGTGGTGGCGGTGGAGGTGGTGGTGGCAGGGGAGGTCGAGGAGGAGG  
 AAGAGGAGGCGGTGGCCGAGGTGGTGAAGAGGTGGTGGTTTTAGAGGTGGAAGAGGAGGAGGTTGGGGC  
 TTCAGAGGAGGAAGAGGAGGAGGCGCGGATTCGAGGAAGGGGACAT

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR211245 representing NM\_001024306  
 Red=Cloning site Green=Tags(s)

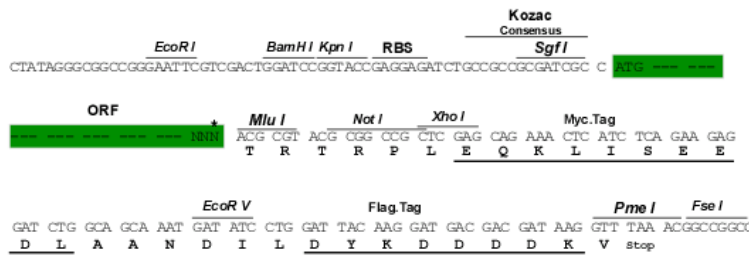
MSFRGGGRGGFNRRGGGGGNRRGGGSNNHFRGGGGGGGGGNFRGGGRGGFRRGGGRGGFNKFQDQGPPE  
 RVVLLGEFMHPCEDDIVCKCTTEENKVPYFNAPVYLENKEQIGKVDEIFGQLRDFYFSVKLSENMKASSF  
 KKLQKFYIDPYKLLPLQRFLPRPPGEKPPRRGGGGGGGGRRGGGRGGGRGGGRGGGRGGFRGRRGGGGG  
 FRGGRRGGGGFRGRGH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001024306

**ORF Size:** 678 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\\_001024306.1](#), [NP\\_001019477.1](#)

**RefSeq Size:** 1386 bp

**RefSeq ORF:** 681 bp

**Locus ID:** 499709

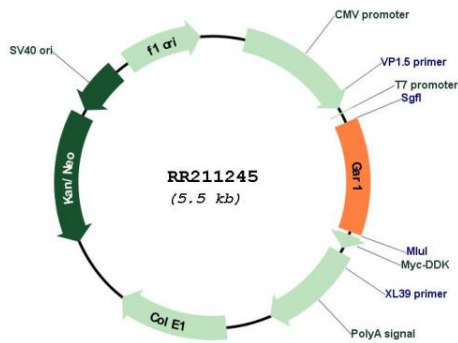
**UniProt ID:** [Q6AYA1](#)

**Cytogenetics:** 2q43

**MW:** 23 kDa

**Gene Summary:** Required for ribosome biogenesis and telomere maintenance. Part of the H/ACA small nucleolar ribonucleoprotein (H/ACA snoRNP) complex, which catalyzes pseudouridylation of rRNA. This involves the isomerization of uridine such that the ribose is subsequently attached to C5, instead of the normal N1. Each rRNA can contain up to 100 pseudouridine ("psi") residues, which may serve to stabilize the conformation of rRNAs. May also be required for correct processing or intranuclear trafficking of TERC, the RNA component of the telomerase reverse transcriptase (TERT) holoenzyme (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RR211245