

## Product datasheet for RC232124

### GNPDA2 (NM\_001270881) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** GNPDA2 (NM\_001270881) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** GNPDA2  
**Synonyms:** GNP2; SB52  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC232124 representing NM\_001270881  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGATGAATATGTAGGACTTCCAAGAAATCATCTGAAAGCTACCATTCTTATATGTGGAATAATTTTT  
 TTAAGCATATCGATATAGATCCTAATAATGCACATATCCTTGACGGGAATGCTGCAGATTTACAAGCAGA  
 ATGTGATGCTTTTGAAAACAAAATAAAAGAAGCTGGAGGAATAGATCTTTTTGTTGGAGGAATTGGTCCA  
 GATGGTCATATCGCTTCAATGAGCCTGGATCCAGTTTAGTGCAAGGACAAGATTAAGACTCTAGCAA  
 TGGATACCATCTTGGCAAATGCCAAATATTTGATGGAGATTTATCAAAAAGTGCCAACTATGGCTCTAAC  
 TGTTGGTGTGGGGACAGTGATGGATGCTAGAGAAGTAATGATCCTTATAACAGGGGCACACAAGGCATTT  
 GCCCTGTACAAAGCAATAGAAGAAGGAGTCAATCACATGTGGACTGTTTCCGCTTCCAGCAGCATCCCC  
 GGACTATTTTGTATGCGATGAAGATGCTACTTTAGAATTAAGAGTTAAAAGTGTGAAATACTTTAAAGG  
 TCTAATGCATGTGCACAATAAAGTGTGGATCCACTATTCAGTATGAAAGATGGAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC232124 representing NM\_001270881  
 Red=Cloning site Green=Tags(s)

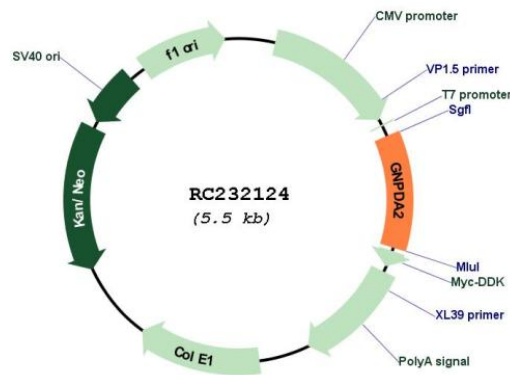
MDEYVGLPRNHPEYHSYMWNNFFKHIDIPNNAHILDGNAADLQAECDAFENKIKEAGGIDLFGVIGIP  
 DGHIAFNEPGSSLVSRTRLKTLAMDTILANAKYFDGDL SKVPTMALTVGVGTVMVDAREVMILITGAHKAF  
 ALYKAIIEGVNHMWTVSFAFQHPRTIFVCEDEATLELRVKTVKYFKGLMHVHNKLVDP LFSMKDGN

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001270881

**ORF Size:** 618 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\\_001270881.1](#), [NP\\_001257810.1](#)

**RefSeq Size:** 2154 bp

**RefSeq ORF:** 621 bp

**Locus ID:** 132789

**UniProt ID:** [Q8TDQ7](#)

**Cytogenetics:** 4p12

**Protein Pathways:** Amino sugar and nucleotide sugar metabolism, Metabolic pathways

**MW:** 23.4 kDa

**Gene Summary:** The protein encoded by this gene is an allosteric enzyme that catalyzes the reversible reaction converting D-glucosamine-6-phosphate into D-fructose-6-phosphate and ammonium. Variations of this gene have been reported to be associated with influencing body mass index and susceptibility to obesity. A pseudogene of this gene is located on chromosome 9. Alternative splicing results in multiple transcript variants that encode different protein isoforms. [provided by RefSeq, Aug 2012]