

Product datasheet for **RG202194**

GNPDA2 (NM_138335) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GNPDA2 (NM_138335) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GNPDA2
Synonyms:	GNP2; SB52
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202194 representing NM_138335 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGCTTGTAATCCTTGATAACTATGACTTGGCTAGTGAATGGGCAGCCAAATACATCTGTAATCGCA
TCATTCAGTTCAAACCTGGACAGGACAGATATTTTACACTGGGTTTACCAACAGGGAGTACACCTTTAGG
ATGCTATAAAAACTAATAGAATATCATAAGAATGGACACCTTTCTTTAAATATGTGAAGACCTTAAT
ATGGATGAATATGTAGGACTTCCAAGAAATCATCCTGAAAGCTACCATTCTTATATGTGAATAATTTTT
TTAAGCATATCGATATAGATCCTAATAATGCACATATCCTTGACGGGAATGCTGCAGATTTACAAGCAGA
ATGTGATGCTTTTGAAAACAAAATAAAAGAAGCTGGAGGAATAGATCTTTTTGTTGGAGGAATTGGTCCA
GATGGTCAATCGCTTCAATGAGCCTGGATCCAGTTTAGTGCAAGGACAAGATTTAAAGACTCTAGCAA
TGGATACCATCTTGGCAAATGCCAAATATTTGATGGAGATTTATCAAAAGTGTCAACTATGGCTCTAAC
TGTTGGTGTGGGACAGTATGGATGCTAGAGAAGTAATGATCCTTATAACAGGGGCACACAAGGCATTT
GCCCTGTACAAAGCAATAGAAGGAGTCAATCACATGTGGACTGTTTCCGCTTTCCAGCAGCATCCCCGGA
CTATTTTGTATGCGATGAAGATGCTACTTTAGAATTAAGAGTTAAAAGTGTGAAATACTTTAAAGGTCT
AATGCATGTGCACAATAAACTTGTGGATCCACTATTCAGTATGAAAGATGGAAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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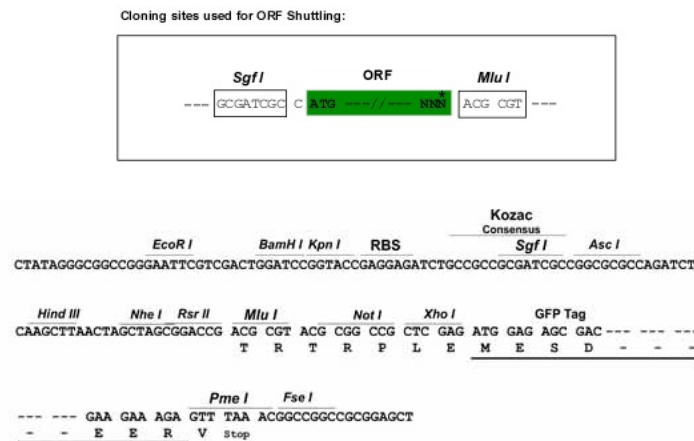
Protein Sequence: >RG202194 representing NM_138335
 Red=Cloning site Green=Tags(s)

MRLVILDNYDLASEWAAKYICNRIIQFKPGQDRYFTLGLPTGSTPLGCKYKLLIEYHKNHLSFKYVKTFN
 MDEYVGLPRNHPEYHSYMWNFFKHIDIPNNAHILDGNAADLQAECDAFENKIKEAGGIDLFVGGIGP
 DGHIAFNEPGSSLSRTRRLKTLAMDITILANAKYFDGDL SKVSTMALTVGVTVM DAREVMILITGAHKAF
 ALYKAIEGVNHMWTVSFAFQQHPRTIFVCEDEATLELRVKTVKYFKGLMHVHNKLVDFLFSMKDGN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_138335

ORF Size: 825 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_138335.1](#), [NP_612208.1](#)

RefSeq Size: 1939 bp

RefSeq ORF: 831 bp

Locus ID: 132789

UniProt ID: [Q8TDQ7](#)

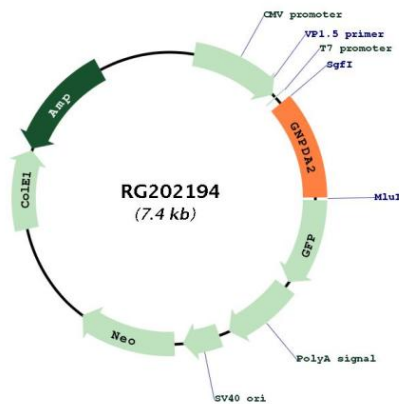
Cytogenetics: 4p12

Domains: Glucosamine_iso

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

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]

Product images:



Circular map for RG202194