

Product datasheet for **RG232342**

GALT (NM_001258332) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GALT (NM_001258332) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GALT
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG232342 representing NM_001258332
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCCTCTCAACCCTCTGTGTCCTGGGGCCATCCGAGCCAACGGAGAGTAAGGTCATGTGCTTCCACC
CCTGGTCGGATGTAACGCTGCCACTCATGTCGGTCCCTGAGATCCGGGCTGTTGTTGATGCATGGGCCTC
AGTCACAGAGGAGCTGGGTGCCAGTACCCTTGGGTGCAGATCTTTGAAAACAAAGGTGCCATGATGGGC
TGTTCTAACCCCCACCCCCTGCCAGGTATGGGCCAGCAGTTTCTGCCAGATATTGCCAGCGTGAGG
AGCGATCTCAGCAGGCCATAAGAGTCAGCATGGAGAGCCCTGCTAATGGAGTACAGCCGCCAGGAGCT
ACTCAGGAAGGAACGTCTGGTCCTAACAGTGAGCACTGGTTAGTACTGGTCCCCTTCTGGCAACATGG
CCCTACCAGACTGCTGCTGCCCGTCGGCATGTGCGGCGGCTACCTGAGCTGACCCCTGCTGAGCGTG
ATGATCTAGCCTCCATCATGAAGAAGCTTTGACCAAGTATGACAACCTCTTTGAGACGCTCTTCCCTA
CTCCATGGGCTGGCATGGGGCTCCACAGGATCAGAGGCTGGGGCCAACCTGGAACCATTTGGCAGCTGCAC
GCTCATTACTACCCTCCGCTCCTGCGCTCTGCCACTGTCCGAAATTCATGGTTGGCTACGAAATGCTTG
CTCAGGCTCAGAGGGACCTACCCCTGAGCAGGCTGCAGAGAGACTAAGGGCACTTCTGAGGTTTCATTA
CCACCTGGGGCAGAAGGACAGGGAGACAGCAACCATCGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232342 representing NM_001258332
Red=Cloning site Green=Tags(s)

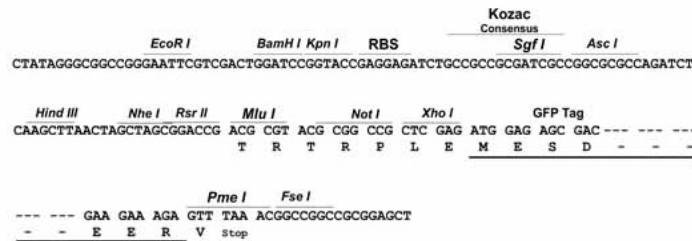
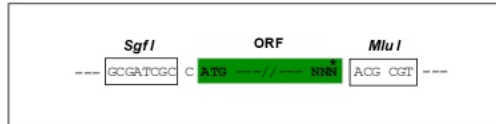
MTLSTLCVLGPSEPTESKVMCFHPWSDVTLPLMSVPEIRAVVDASVTEELGAQYPWWQIFENKGMGMG
 CSNPHPHCQVWASSFLPDIAQREERSQQAYKSQHGEPLLEMEYSRQELLRKERLVL TSEHWLVLVVPFWATW
 PYQTL LLLPRRHVRRLELTPAERDDLASIMKLLTKYDNL FETSFYPMGWHGAPTGSEAGANWNHWQLH
 AHYYPLLRSATVRKFMVGYEMLAQQRDLTPEQAAERLRALPEVHYHLGQKDRETATIA

TRTRPLE - GFP Tag - V

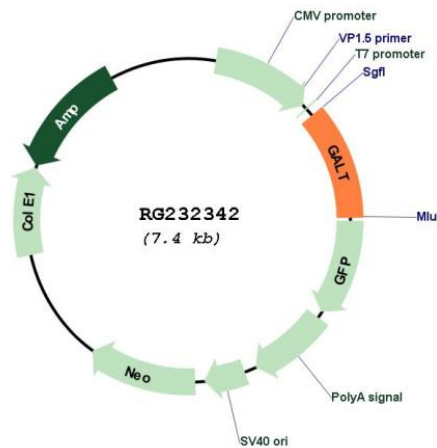
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001258332

ORF Size: 810 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:	<ol style="list-style-type: none">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_001258332.1 , NP_001245261.1
RefSeq Size:	1282 bp
RefSeq ORF:	813 bp
Locus ID:	2592
UniProt ID:	P07902
Cytogenetics:	9p13.3
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Galactose metabolism, Metabolic pathways
Gene Summary:	Galactose-1-phosphate uridyl transferase (GALT) catalyzes the second step of the Leloir pathway of galactose metabolism, namely the conversion of UDP-glucose + galactose-1-phosphate to glucose-1-phosphate + UDP-galactose. The absence of this enzyme results in classic galactosemia in humans and can be fatal in the newborn period if lactose is not removed from the diet. The pathophysiology of galactosemia has not been clearly defined. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]