

## Product datasheet for **MR228486**

### Galt (NM\_001302511) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Galt (NM\_001302511) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Galt  
**Synonyms:** AW553376  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR228486 representing NM\_001302511  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGATGGGCTGTTCTAACCCCATCCCCACTGCCAGGTTGGGCTAGCAGCTTCCTGCCAGATATCGCCC  
AGCGTGAAGAGCGATCCCAGCAGACCTATCACAGCCAGCATGGAAAACCTTTGTTATTGGAATATGGTCA  
CCAAGAGCTCCTCAGGAAGGAACGTCTGGTCTAACCAAGTGGAGTGGATAGTTCTGGTCCCCTTCTGG  
GCAGTGTGGCCTTCCAGACACTTCTGCTGCCCGGGCGGCACGTGCGGGCGCTACCTGAGCTGAACCCCG  
CTGAGCGTGATGATCTCGCTCCATCATGAAGAAGCTCTTGACCAAGTACGACAATCTATTTGAGACATC  
CTTTCCCTACTCCATGGGCTGGCATGGGGCTCCCACGGGATTAAGACTGGAGCCACCTGTGACCACTGG  
CAGCTCCACGCCCACTACTACCCCACTTCTGCGATCCGCAACTGTCCGGAAGTTCATGGTTGGCTATG  
AAATGCTTGCCAGGCCAGCGTGACCTCACTCCCGAACAGGCCGAGAAAGATTAAGGGCGCTTCCCGA  
GGTACACTATTGCTGGCGCAGAAAGACAAGGAAACGGCAGCCATTGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR228486 representing NM\_001302511  
Red=Cloning site Green=Tags(s)

MMGCSNPHPHCQVWASSFLPDIAQREERSQQTYSQHKGKPLLLLEIGHQELLRKRVLVLTSEHWIVLVPFW  
AVWPFQTLPLRRHVRRLPELNPAERDDLASIMKLLTKYDNLFETSFYSMGWGAPTGLKGTGATCDHW  
QLHAHYYPPLRSATVRKFMVGYEMLAQQRDLTPEQAAERLRALPEVHYCLAQDKETAIA

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

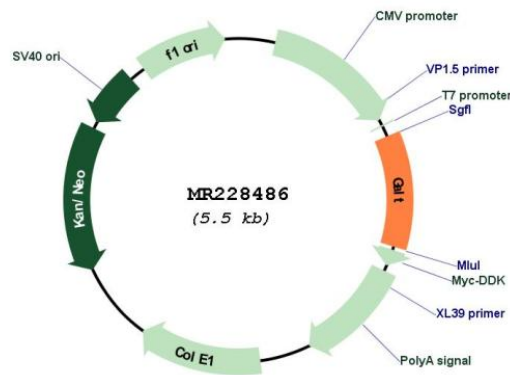


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001302511

ORF Size: 609 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\\_001302511.2](#)

**RefSeq Size:** 1544 bp

**RefSeq ORF:** 612 bp

**Locus ID:** 14430

**Cytogenetics:** 4 22.07 cM

**MW:** 24 kDa

**Gene Summary:** The protein encoded by this gene is the second enzyme in the Leloir pathway, the metabolic pathway for D-galactose catabolism. It catalyzes the conversion of galactose-1-phosphate and uridine diphosphate-glucose to glucose-1-phosphate and uridine diphosphate galactose. Deficiency of this enzyme causes the genetic metabolic disorder galactosemia. Mice lacking this protein accumulate high levels of galactose and galactose-1 phosphate but are viable and fertile. This protein is negatively regulated through signaling by the polypeptide hormone prolactin, specifically via the short isoform of the prolactin receptor and the transcription factor Forkhead box O3. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]