

Product datasheet for **RG212751**

LCT (NM_002299) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LCT (NM_002299) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LCT
Synonyms:	LAC; LPH; LPH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG212751 representing NM_002299 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG212751 representing NM_002299
 Red=Cloning site Green=Tags(s)

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 KGLSIWDTFSHTPLRVENDAIGDVACDSYHKIAEDLVTLQNLGVSHYRFSISWSRILPDGTRYINEAGL
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 GVSQREETDLNDTARIYYLRTYINEALKAVQDKVDLRGYTVWSAMDNFEWATGFSERFGLHFVNYS DPSL
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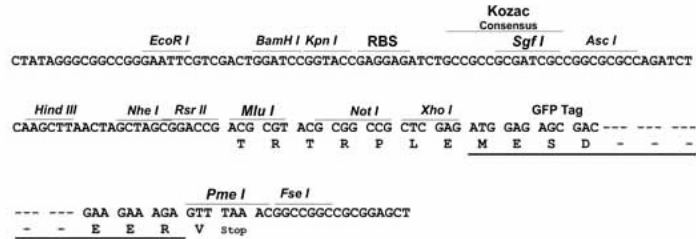
TRTRPLE – GFP Tag – V

Restriction Sites:

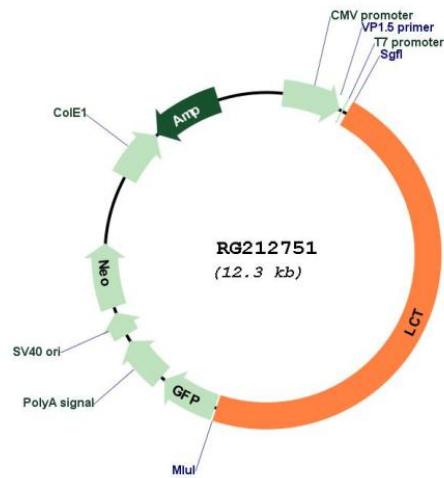
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_002299

ORF Size: 5781 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_002299.4
RefSeq Size:	6274 bp
RefSeq ORF:	5784 bp
Locus ID:	3938
UniProt ID:	P09848
Cytogenetics:	2q21.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Galactose metabolism
Gene Summary:	The protein encoded by this gene belongs to the glycosyl hydrolase 1 family of proteins. The encoded preproprotein is proteolytically processed to generate the mature enzyme. This enzyme is integral to the plasma membrane and has both phlorizin hydrolase activity and lactase activity. Mutations in this gene are associated with congenital lactase deficiency. Polymorphisms in this gene are associated with lactase persistence, in which intestinal lactase activity persists at childhood levels into adulthood. [provided by RefSeq, Jan 2016]