

## Product datasheet for SC303171

### LCT (NM\_002299) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LCT (NM_002299) Human Untagged Clone
Tag:	Tag Free
Symbol:	LCT
Synonyms:	LAC; LPH; LPH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC303171 representing NM_002299. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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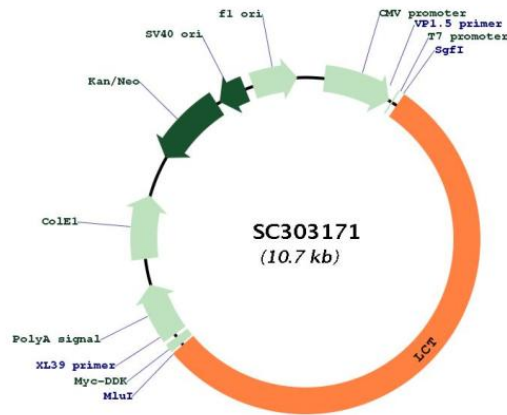
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```

Restriction Sites:

Sgfl-MluI

Plasmid Map:



ACCN:

NM\_002299

Insert Size:

5784 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation:

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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\\_002299.3](#)

**RefSeq Size:** 6288 bp

**RefSeq ORF:** 5784 bp

**Locus ID:** 3938

**UniProt ID:** [P09848](#)

**Cytogenetics:** 2q21.3

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Galactose metabolism

**MW:** 218.6 kDa

**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]