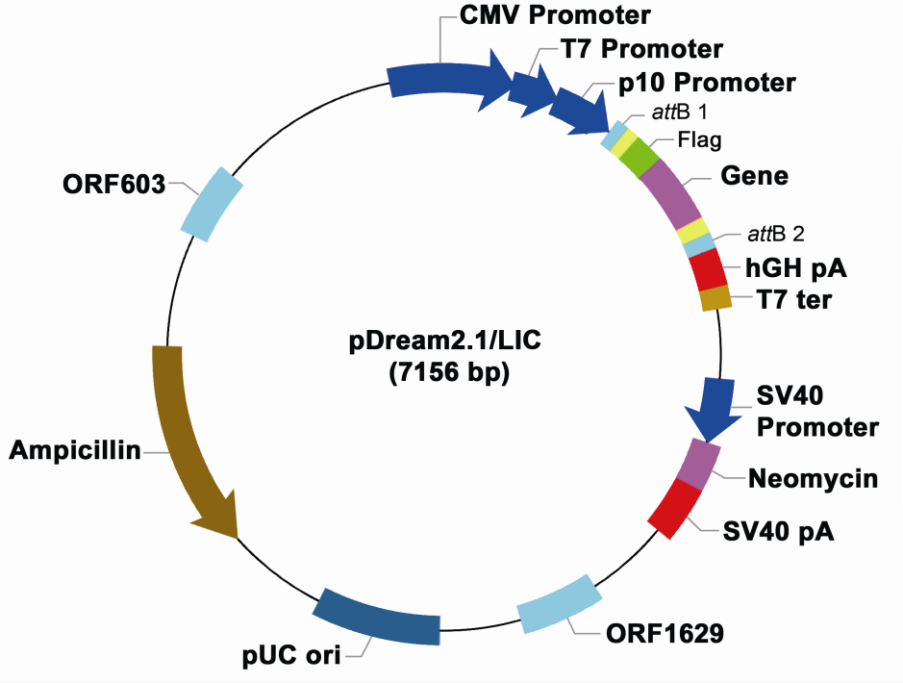
Datasheet Update: 03252009

pDream2.1/LIC Vector

Cat. No. SD0221

Description: GenScript pDream2.1/LIC vector is a protein expression vector for both efficient cloning and high-level expression of any target genes. The gene of interest can be efficiently cloned into the vector using Ligation Independent Cloning (LIC) method, and can be expressed directly without any further cloning work in any one of the three major protein expression systems: Bacteria, Insect cells and Mammalian cells. The GenScript LIC cloning kit is included in the pDream2.1/LIC vector package.



ORF603:	45-1011
CMV Promoter:	1020-1602
T7 Promoter:	1609-1625
P10 Promoter:	1651-1764
SV40 Promoter:	2997-3342
Neomycin:	3383-4177
ORF1629:	4918-5424
pUC ori:	5602-6233
Ampicillin:	6234-7094

Cloning Region (predigested):

Promoters and forward sequencing primer →

ACAAGTTTGTACAAAAAAGCAGGCTAAGGAGATATACCATGGATTACAAGGATGACGACGACAAGA sticky end

***att*B1** **FLAG Sequence & EK Cleavage**

sticky end → CCGGGCTTCTCCTCAGCGGCCGCC**TATAGTGTCACCTAAATCGT**AACCCAGCTTTCTTGTACAAAGTGGT

Reverse Sequencing Primer ***att*B2**

→ **hGH polyA signal and T7 terminator**

Sequencing Primers:

Forward primer DA0009: T7 (TAATACGACTCACTATAGGG)

Reverse primer DA0008: SP6 (TACGATTTAGGTGACACTATAG)

Gene Cloning: The gene of interest is cloned into pDream2.1/LIC vector using Ligation Independent Cloning (LIC) method. The cloned gene will start from A(TG) just after FLAG sequence and end with stop codon TGA (or TAA, TAG) at the positions as shown in Cloning Region section. A pair of sequencing primers, forward primer (T7 sequencing primer, DA0009, at T7 promoter) and reverse primer (SP6 sequencing primer, DA0008), can be used to sequence and confirm the gene.

Features:

1. **CMV promoter** is for high-level constitutive expression of genes in a variety of mammalian cell lines (tm0180).
2. **T7 promoter** is for convenient expression of genes in bacteria and *in vitro* transcription/translation analysis (tm0180).
3. **P10 baculovirus promoter** is for high-level expression of genes in baculovirus-infected insect cells (tm0180).
4. **A Flag tag sequence** is placed before the gene of interest for the single column purification and specific detection of the fused protein using specific and sensitive anti-Flag antibodies.
5. **The Flag tag sequence** is also the cleavage site by enterokinase (EK) to generate an authentic protein starting with Methionine.
6. **This vector with *att*B1 and *att*B2 sequences** flanking the gene of interest is compatible with Invitrogen Gateway Technology and can be used to move DNA sequence (any genes) into multiple vector systems for functional analysis and protein expression.
7. **This vector** is compatible with Novagen EK/LIC Kits and can be used to clone any genes into the vector using Ligation Independent Cloning (LIC) technology.

*** Limited Use Label License:** The use of CMV promoter is covered under U. S. Patent No. 5,168,062 and 5,385,839 owned and licensed by the University of Iowa Research Foundation and is sold for research use only. Commercial users must obtain a license to these patents directly from the University of Iowa Research Foundation (UIRF), 214 Technology Innovation Center, Iowa City, Iowa 52242. For further information, please contact the Associate Director of UIRF, at 319-335-4546.