Resource Summary Report

Generated by dkNET on Aug 2, 2026

KG#493

RRID:Addgene_110932
Type: Plasmid

Proper Citation

RRID:Addgene_110932

Plasmid Information

URL: http://www.addgene.org/110932

Proper Citation: RRID:Addgene_110932

Insert Name: unc-17 promoter

Organism: Caenorhabditis elegans

Bacterial Resistance: Ampicillin

Defining Citation: PMID:17942708

Vector Backbone Description: Backbone Size:2632; Vector Backbone:pUC; Vector Types:Bacterial Expression; Bacterial Resistance:Ampicillin

Comments: Unique multi-cloning sites: Nhe I, Sbf I, Kpn I/ Age I/ Eco RV, Bgl II Note: this vector is the same as KG#94, except a Sbf I site replaces the Sal I site. Synthesized 2 complementary oligos containing Nhe I and Age I sticky ends and Sbf I and Kpn I sites in between. Hybridization of the 2 oligos to each other should produce Nhe I and Age I sticky ends. After hybridization, this synthetic insert (which is non-phosphorylated on its 5' termini) was cloned into Nhe I/ Age I cut KG#94. Transformed into XL1-Blue electrocompetent cells. Miniprepped 4 clones and tested for the Sbf I site by cutting with Sbf I. Chose one clone that has the Sbf I site with correct band size (and only a single band) and made a glycerol stock. Features of the expression construct: This is a C. elegans expression vector with the unc-17 3.2 Kb promoter + a large MCS for cloning in cDNAs. Includes cha-1/unc-17 upstream region from Sna-1 (=Bst1107 I = GTA/TAC) down to first half of the 66 bp first exon (which is common to unc-17 and cha-1 transcripts but is not translated). Includes beta site so that expression occurs in most cholinergic cells. Expression still missing from VC's and some cholinergic head and tail neurons. In this construct the GFP/ 3' control region of RM#349p is replaced with the MCS II + 3' control region of pPD96.52. This includes the unc-54 3' end including the poly A addition signal, and 3 introns (1 in 5' UTR, 1 just upstream of the unc-54 3' end, and 1 inserted in the unc-54 3' end). These introns help provide more uniform and robust expression,

especially if you are expressing a cDNA with no introns as opposed to a gene with introns. Note: this vector can be converted to a vector that fuses GFP, YFP, or CFP onto the C-terminus of the protein as follows: Remove the ~1000 bp (Kpn I or Age I) + (Spe I or BsiW I [expensive, 55 C cutter with 50% activity at 37 C; heat inactivate 80 C] or Apa I) fragment containing the unc-54 3' control region from this plasmid and replace it with the ~1800 bp like-digested fragment containing 3-intron S65C GFP (see pPD94.81 in Fire Lab plasmids), YFP (see pPD136.64 in Fire Lab plasmids) or CFP (see pPD136.61 in Fire Lab plasmids) + the unc-54 3' UTR and control region. Note if Spe I is used to cut these Fire Lab vectors, you get 3 bands: 1100, 1800, and 4000 (total size 6.9 Kb). The 1800 bp band is the XFP-containing band. For C-terminal fusions, remember to leave the stop codon off of the upstream protein. For the above-mentioned Fire Lab vectors, the reading frame for the downstream XFP relative to the Kpn I and Age I sites is as follows (triplets are the reading frame codons): Kpn I G GTA CCG GT Age I Alternatively, use Gibson Assembly/ NEBuilder to insert any genetically encoded fluorescent protein at the N- or C-terminus of your protein.

Plasmid Name: KG#493

Record Creation Time: 20220422T221540+0000

Record Last Update: 20260801T075928+0000

Ratings and Alerts

No rating or validation information has been found for KG#493.

No alerts have been found for KG#493.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We have not found any literature mentions for this resource.