

Resource Summary Report

Generated by [RRID](#) on Aug 20, 2026

[KG#901](#)

RRID:Addgene_110936

Type: Plasmid

Proper Citation

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Plasmid Information

URL: <http://www.addgene.org/110936>

Proper Citation: RRID:Addgene_110936

Insert Name: mig-13 promoter

Organism: Caenorhabditis elegans

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:30401765](#)

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

Comments: Used ApE plasmid editor to digitally construct the plasmid, then designed the primers necessary to assemble Emerald and RAB-3 into the mig-13:: vector background. We then used Herculase II to produce the fragments and the NEBuilder Master Mix to make the new plasmid. Transformed into XL1-Blue electrocompetent cells. Did Qiagen preps on 2 clones, screened by PCR, and submitted 1 clone for sequence of the Emerald-RAB-3 region. Froze the DNA and made a glycerol stock. Sizes and locations of the component fragments the below table: KG#471 mig-13 promoter and vector sequences 7.1 kb KG#858 Emerald 720 bp KG#776 rab-3 cDNA 660 bp In transgenic animals, this vector will produce Emerald-RAB-3 to tag synaptic vesicles in the DA9 cholinergic motor neuron, thus allowing visualization of synaptic vesicles in a single neuron in living animals. Features of the expression construct: The mig-13 promoter drives expression in DA9 from hatching to adult and VA12 from mid-larval to adult stages. Also drives expression occasionally in PHAL, PVCL, and LUAL in addition to many neurons anterior to the vulva. This vector has 3 synthetic introns for increasing the robustness of intronless insert expression: 1 in the 5' UTR, one just upstream of the unc-54 3' UTR/ control region, and one in the 3' UTR of unc-54. The new MCS in this construct is derived from pPD96.52, with the addition of an 8-cutter Sbf I site between Nhe I and Kpn I. 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#901

Record Creation Time: 20220422T221540+0000

Record Last Update: 20260815T080144+0000

Ratings and Alerts

No rating or validation information has been found for KG#901.

No alerts have been found for KG#901.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.