Transgenic lines

We are proposing the following services:

• Purification of DNA samples for injection - 40 €

• P-element Basic - 180 €

• P-element Extended - 230 €

• Site-specific Basic - 180 €

• Site-specific Extended - 230 €

Purification of DNA samples for injection - 40 €:

As the quality of DNA sample has an important influence on efficiency of transgenesis we propose plasmid purification to standardize this step. We are using Qiagen Endo Free Plasmid purification kit ensuring that DNA is free of endotoxins and other contaminants such as trace of phenol, ethanol or enzymes.(

P-element Basic - 180 €:

Accurately purified DNA sample of the P-element construct for injection is provided either by customer (see Protocols) or is purified by our team as a service option (see above).

Prior to injection, we check DNA concentration, ethanol precipitate and mix with the helper plasmid (we provide).

Basic service includes injection of the P-element construct into 250 w1118 embryos and sending back the survival larvae in vials.

You are responsible for identifying your own transformants and balancing them.

We guarentee at least 3 transformant lines for constructs of reasonable size (less than 13 kb total plasmid size).

We developed a user-friendly Tracking-System that allows you to follow the progress of transgenesis with your sample.

P-element Extended - 230 €:

We will rear the injected larvae to adulthood following the Basic services. Cross the G0 injected flies to w1118 virgins or males (usually 100 individual crosses). Identify and collect the transformants. The collected transformant flies (at least 3 independent lines) will be sent to the customer and original vials will be maintained in our lab for about two weeks. If your DNA for injection is larger than 13 kb we can get less than 3 independent transfotmants because large constructs are more difficult to insert into the genome.

As for basic service you can follow the progress of transgenesis using our on-line Tracking-System .

Site-specific Basic - 180 €:

Purified DNA sample of an attB containing vector is provided by customer (actually we do not propose purification service for site-specific vectors). Depending on the attP strain used 200-300 embryos are injected. For some P[acman] system injections, we will use embryos from the crosses between the selected docking-site strain and the PhiC31 integrase-source strain. For injections into strains from FlyC31 collection (Basler lab) containing the PhiC31 source no cross is required. In any case we will collect the survival embryos and send, the G0 larvae embryos. You are responsible for identifying your own transformants. We do not guarantee transformants in Basic service however we can suggest « landing » strains that in our hands are relatively efficient.

As in other services you can use Tracking-System to follow the progress of transgenesis.

Site-specific Extended - 230 €:

This service in addition to Basic service includes identification of site-specific transformants. We will inject your attB DNA sample into 200-300 embryos, back-cross survival adults to yw and ship the transformants to you. We guarantee at least 1 independent transformant line but send all found in the screening process.

"1 independent G1 transformant [a] due to the fact that all transformants have the same insertion site and you need only one line for analysis.

You can follow the progress in generation of transformants by logging to the Tracking-System .

PhiC31 integrase-mediated site-specific transgenesis

We can order the stocks containing the docking sites that are available from the Bloomington Drosophila Stock Center. (Supplementary time)

To generate transgenic animals we can use flies with endogenous PhiC31 source or co-injecting the PhiC31 mRNA. It is costumer’s choice.

In our hands the best transformation score we have with Bloomington lines

No. 24749, 24482, 24872 and 24871(genotypes below).

y1 M{vas-int.Dm}ZH-2A w*; M{3xP3-RFP.attP}ZH-86Fb

y1 M{vas-int.Dm}ZH-2A w*; M{3xP3-RFP.attP'}ZH-51C.

y[1] M{vas-int.Dm}ZH-2A w[*]; PBac{y[+]-attP-3B}VK00037

y1 M{vas-int.Dm}ZH-2A w*; PBac{y+-attP-3B}VK00033