

FlyTrap Protein Trap Background Information

The Trap types:

	<p>Protein</p>	<p>1. The GFP exon is in an intron between two coding exons of a known or predicted gene product, in the applicable reading frame. 2. Also included in this category are lines with GFP upstream of coding sequence that we verified by RNA analysis were splicing to the ATG-containing exon. This results in an N-terminal fusion of GFP to the protein.</p>
	<p>Protein?</p>	<p>The GFP exon upstream of the coding sequence of a known or predicted gene product. Splicing to the ATG-containing exon likely results in an N-terminal fusion of GFP to the protein.</p>
	<p>Enhancer</p>	<p>The GFP exon is within 500bp upstream of a gene, but not within coding sequence. Expression of GFP is controlled by nearby enhancers, and results from introduction of start and stop codons by splicing to either transposon or genomic DNA.</p>

Participating Labs

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Where the lines came from:

Line Prefix	GFP reading frame used	Transposon	Lab of origin	Citation
BA	A	PBac	Spradling	Buszczak <i>et al</i>
CA	A	P element	Spradling	Buszczak <i>et al</i>
CB	B	P element	Spradling	Buszczak <i>et al</i>
CC	C	P element	Spradling	Buszczak <i>et al</i>
G	A, B, C	P element	Chia	Morin <i>et al</i>
P	A, B, C	P element	Cooley	Quiñones-Coello <i>et al</i>
YB	B	P element	Cooley	Quiñones-Coello <i>et al</i>
YC	C	P element	Cooley	Quiñones-Coello <i>et al</i>
YD	A	PBac	Cooley	Quiñones-Coello <i>et al</i>
ZCL	A, B, C	P element	Chia	Morin <i>et al</i>

Please cite the appropriate publications when you use a FlyTrap line in your research.

Morin, X., R. Daneman, M. Zavortnik and W. Chia (2001) A protein trap strategy to detect GFP-tagged proteins expressed from their endogenous loci in <i>Drosophila</i> . <i>Proc. Natl. Acad. Sci. USA</i> 98: 15050-15055
Kelso, R. J., M. Buszczak, A. T. Quiñones, C. Castiblanco, S. Mazzalupo and L. Cooley (2004) Flytrap, a database documenting a GFP protein-trap insertion screen in <i>Drosophila melanogaster</i> . <i>Nucleic Acids Research</i> 32: D418-420.
Buszczak, M., S. Paterno, D. Lighthouse, J. Bachman, J. Plank, S. Owen, A. Skora, T. Nystul, B. Ohlstein, A. Allen, J. Wilhelm, T. Murphy, R. Levis, E. Matunis, N. Srivali, R. Hoskins, and A.C. Spradling (2007) The Carnegie protein trap library: a versatile tool for <i>Drosophila</i> developmental studies. <i>Genetics</i> 175(3): 1505-1531.
Quiñones-Coello, A.T., L.N. Petrella, K. Ayers, A. Melillo, S. Mazzalupo, A.M. Hudson, S. Wang, C. Castiblanco, M. Buszczak, R.A. Hoskins, and L. Cooley (2007) Exploring strategies for protein trapping in <i>Drosophila</i> . <i>Genetics</i> 175(3): 1089-1104.

