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Genomic localization of two public gal80ts transgenes.

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The application of thermo-sensitive *S. cerevisiae* GAL80 protein as an experimental tool was introduced to *Drosophila melanogaster* research more than a decade ago (Davis *et al.*, 2003a). These mutant proteins can be used to regulate GAL4 driven transcription enabling temporal regulation of UAS containing transgenes. The goal of this study was to determine the genomic position of GAL80ts transgenes in the P{tubP-GAL80^{ts}}10 and P{tubP-GAL80^{ts}}7 lines available from the Bloomington Drosophila Stock Center (stock #7108 and #7018, respectively). Both stocks carry a P{tubP-GAL80^{ts}} element (Davis *et al*., 2003b) expressing a temperature-sensitive Scer\GAL80 under the control of the αTub84B promoter. To determine the insertion site of the P{tubP-GAL80^{ts}} elements we applied inverse PCR followed by capillary sequencing. The 5' end of the P{tubP-GAL80^{ts}} construct has a FspBI site (CTAG) 373 bp from the end of the element. We designed inverse PCR primers (forward: TGC ACC TGC AAA AGG TCA GA, reverse: CGA CGG GAC CAC CTT ATG TT) specific for the 5' end of the P element before the FspBI site and used them in PCR reactions to generate amplicons from FspBI digested genomic DNA fragments circularized by ligation. Agarose gel electrophoresis showed single ~500 bp and ~700 bp bands in the lanes of samples prepared form stocks #7108 and #7018, respectively. There was no amplification in the control samples in which DNA ligation was omitted. We determined the sequence of the amplicons by capillary sequencing then identified the positions of the sequences on the r6.08 release of the *D. melanogaster* genome [Dos *et al*., 2015] by BLAST. The sequence recovered from stock #7108 corresponds to an intergenic genomic region (2R:14884330-14884713, inferred cytogenetic location 51D1) between the *Cyp6a20* and *Cyp6a21* genes. The sequence recovered from stock #7018 contains sequences (3R:29806159-29806760, inferred cytogenetic location 99C2) from the *non-claret disjunctional* (*ncd)* gene. The transposon is inserted at position 3R:29806760 in the 5' UTR of the ncd-RB transcript, 13 bp upstream of the transcriptional start site of the ncd-RA transcript variant.

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