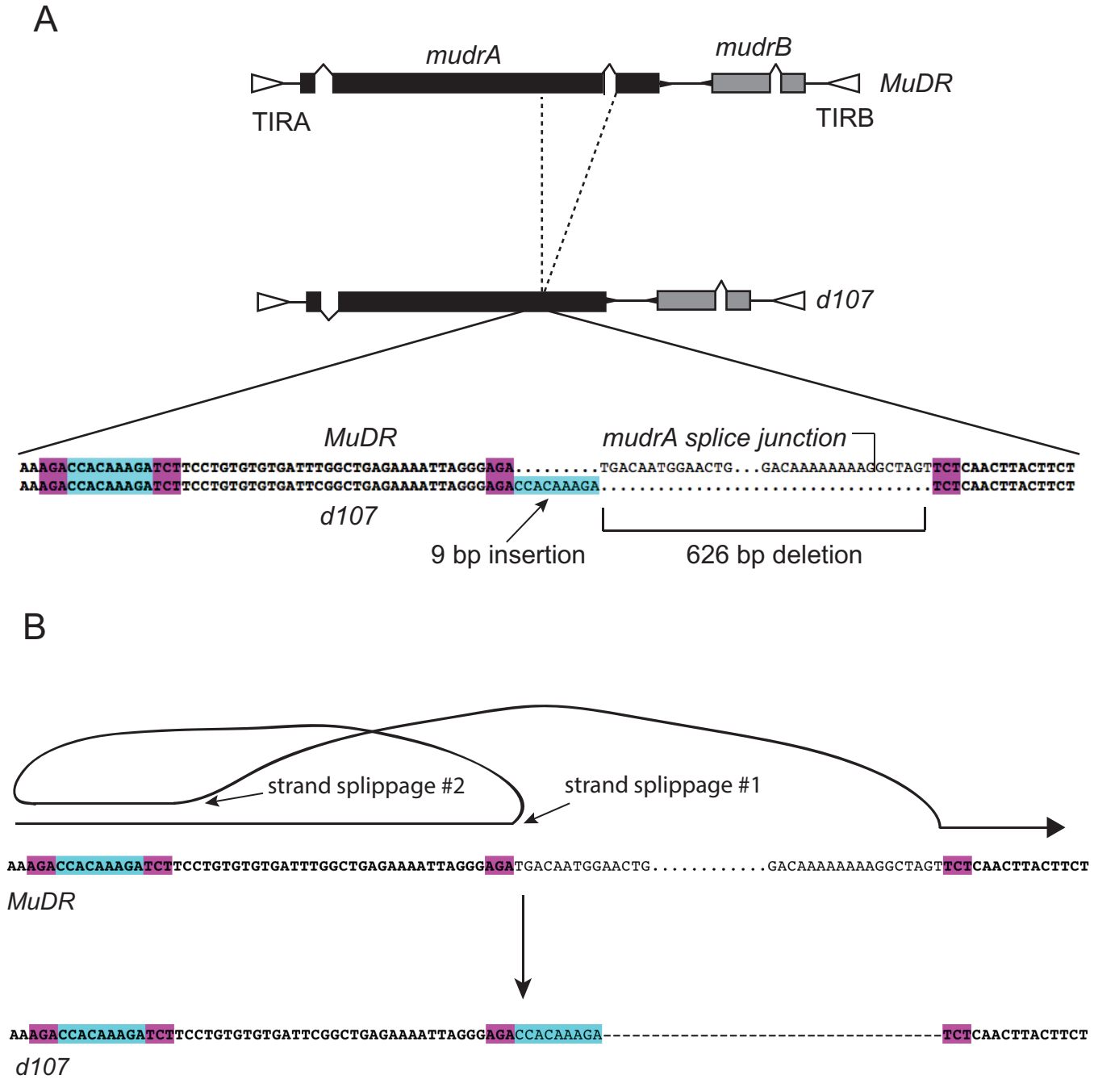

Figure S1. Sequence analysis of the deletion in d107. A) Structure of the progenitor (*MuDR*) sequence and that of the deletion derivative. B) Hypothesized mechanism of deletion. MuDR replication is thought to involve gap repair using the sister chromatid as a template (LI et al. 2008). To generate the deletion at d107, we hypothesize that replication proceeded to an AGA triplet, at which point the replicated strand switched to a second AGA 47 bp upstream. Replication then continued until it reached a TCT triplet, at which point replication switched to a second TCT triplet 660 bp downstream. The net result was a deletion of 626 bp and the insertion of a short (9 bp) upstream sequence at the end of the deletion.