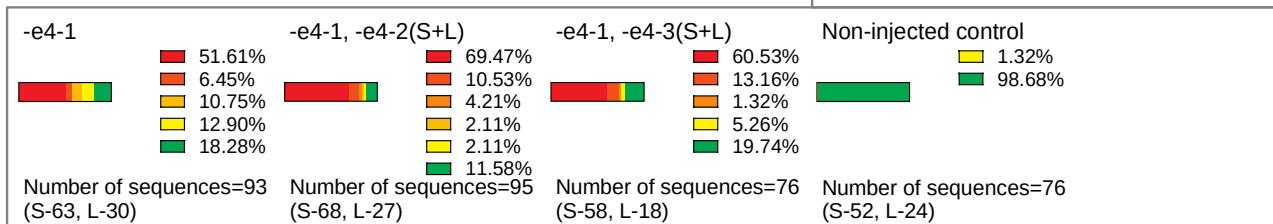


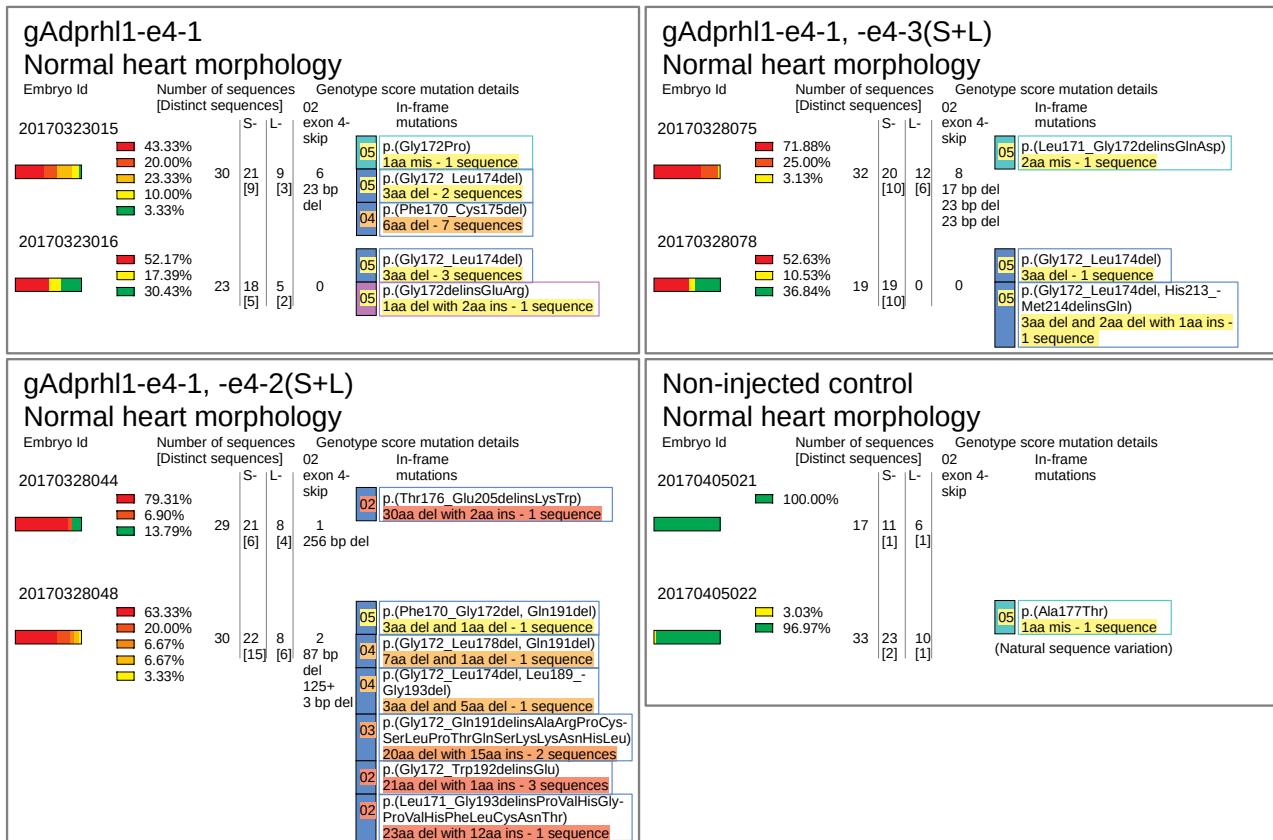
**S13.**

### Exon 4 classification of mutated *adprhl1* sequences - Incomplete mutation rarely causes heart defects

#### A All sequences grouped by gRNA injection



#### B Sequences and mutation details of individual embryos



#### C Exon 4 amino acid changes in $\alpha$ -helices not associated with the active site

