



**Supplementary Figure S3. Stochastic persistence of zebularine-induced *TS-GUS* reactivation in adult tissues of zebularine treated mutants. (A) Whole-plant GUS staining**

of wild type and *drd1* plants treated with 20  $\mu$ M zebularine for 1 week and recovered without the inhibitor for 2 weeks. GUS activity in *drd1* is still detectable in all rosette leaves at this stage **(B)** GUS staining of cauline leaves and inflorescences from *TS-GUS* plants treated with 20  $\mu$ M zebularine for 2 weeks and recovered without the drug for 3 weeks. GUS activity in vascular tissues and small patches (arrowheads) could be detected in *ago4* or *drd1* plants respectively. **(C)** Quantitative reverse transcription PCR measurements of activated repetitive elements in adult cauline leaves of zebularine-treated mutant plants (Two weeks zebularine treatments and three weeks recovery). Results from two independent biological replicates are shown.