



Fig. 2. (B) DNA from PCR positive transgenic plants was isolated and subjected to genomic blot analysis using the accompanying protocol, except only 1  $\mu$ g of DNA was used for the JKA plants. The fragments indicated in panel A were random primer labeled with [ $^{32}$ P]dCTP and used as hybridization probes. Size markers are shown to the left of the blots and the expected fragments are indicated with asterisks. 4x or 1x, 4 or 1 copy reconstructions of the chimeric genes; wt, wild-type T309 DNA; 56 and 61, independently transformed rice plants transgenic for construct JKA; 68, 76, and 87, independently transformed rice plants transgenic for construct WBD. The indicated DNAs were left undigested (u) or digested with *Bam*HI and *Eco*RI (B/RI), *Kpn*I (K), *Eco*RV (RV), or *Eco*RI (RI).

attached; others had DNA precipitates attached that were actually larger than the 1- $\mu$ m microcarriers.

#### 4. Notes

1. Contamination of samples with plasmid DNA and crosscontamination during plant DNA isolation must be rigorously avoided. Since the reaction is exponential and the total amount of product made is primer-limited, the signal strength cannot be used to judge whether a fragment is caused by contamination. In theory, if the reaction is carried to completion, all reactions with the same primers should result in the same amount of product regardless of input DNA concentration. In practice, differences in signal intensity do occur, but are presumably the result of inefficient priming, inefficient elongation, inhibitors in the crude DNA samples, or a combination of these factors. Therefore, the following precautions should always be taken with all materials that will be used for PCR analysis.
  - a. Use gloves at all times and frequently wash or change them.
  - b. Use aerosol resistant pipet tips for all steps, including stock solution preparation, DNA isolations, and PCR reactions.