

عنوان مقاله:

(Antitumor properties of two traditional aromatic rice genotypes (Kalijira and Chinigura

محل انتشار:

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خلاصه مقاله:

Objective: Methanol extract of bran and unpolished grain of two traditional aromatic rice genotypes viz. Kalijira and Chinigura were assayed for their activity on the growth and initiation of crown-gall tumors on potato disks. Materials and Methods: Three *Agrobacterium tumefaciens* (A. tumefaciens) strain AtSI0105, AtTa0112, and AtAc0114 were used as the tumor forming agent. Collected rice was separated to bran and unpolished grain by different milling processes and made into fine powder before extracting using methanol. Antitumor assay of plant extracts was performed according to standard potato disc bioassay. Disc diffusion assay (Kirby-Bauer Method) was used to screen A. tumefaciens sensitivity test. Results: The results demonstrated a high correlation between the ability of aromatic rice to inhibit the initiation and growth of crown-gall tumors on potato disks. Maximum tumor inhibitions were observed against the strain AtSI0105 by Kalijira bran (73.91%) and Chinigura bran (69.56%). Both unpolished grains showed significant effect (Kalijira 57.43%, Chinigura 55.53%) to inhibit the tumor. Conclusion: It can be concluded that aromatic rice (Kalijira and Chinigura) might be a potential source of antitumor agent that can be used for further drug development for tumor treatment.

کلمات کلیدی:

Antitumor activity, Traditional rice, Tumor inhibition, Unpolished grain

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