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Inactivation of putative PKS genes can double geldanamycin yield in *Streptomyces hygroscopicus* 17997

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ABSTRACT. The putative polyketide biosynthesis (PKS) genes *cos10* and *pg10* were inactivated by insertion of a kanamycin-resistance gene into the genome of the geldanamycin-producing strain, *Streptomyces hygroscopicus* 17997. The resultant inactivation were confirmed by PCR analysis. The abilities of the PKS gene inactivation strains to produce geldanamycin were compared with the natural geldanamycin-producing strain, *S. hygroscopicus* 17997. The *cos10*-inactivated strain exhibited an unchanged ability to produce geldanamycin, but the *pg10*-inactivated strain can produce twice the yield of the natural strain when grown under the same conditions. We propose that there is a sub-PKS pathway in the geldanamycin-producing strain, *S. hygroscopicus* 17997.

Key words: Geldanamycin; Inactivation; PKS; Hsp90 inhibitor

