

## High density culture in *Sorangium cellulosum* for production of anti-cancer drug epothilone

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To obtain high concentration culture in *Sorangium cellulosum* is essential to enhancement of epothilone production. Therefore, we investigated the effect of starch, glucose for optimal carbon condition, and yeast extract for optimal nitrogen condition. High initial concentration of glucose inhibited cell growth in *Sorangium cellulosum*. Therefore, based on results of batch culture, fed-batch system has been developed for high level concentration culture in *Sorangium cellulosum*. Also, we investigated the effect of lactose on epothilones production in fed-batch culture. In comparison with control fermentation, total epothilones production was increased when lactose was at the death phase.