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(54) Title: GENES FOR THE BIOSYNTHESIS OF EPOTHILONES (57) Abstract Nucleic acid molecules are isolated from <i>Sorangium cellulosum</i> that encode polypeptides necessary for the biosynthesis of epothilone. Disclosed are methods for the production of epothilone in recombinant hosts transformed with the genes of the invention. In this manner, epothilone can be produced in quantities large enough to enable their purification and use in pharmaceutical formulations such as those for the treatment of cancer.		