ABSTRACT OF THE DISCLOSURE

Expression of *Carcinoscorpius rotundicauda* factor C in eukaryotes

CrFC21 cDNA was cloned into two mammalian vectors: pCIneo and pCDNAI, both of which carry the strong CMV promoter for expression in mammalian cell lines. Various CrFC cDNA constructs transformed into *P. pastoris* and *S. cerevisiae* were expressed to yield full-length recombinant Factor C (rCrFC) protein of about 130 kDa which is immunoreactive. The rCrFC is expressed in an intracellular, insoluble form. Intracellular localization of the nascent protein provides protection from premature digestion by proteases secreted by the host cell. Subsequent to its synthesis, rCrFC is solubilized and purified under pyrogen-free conditions. Using established protocols, the protein can be denatured and renatured to recover its biological functionality. By manipulation of the 5' end of CrFC26, truncated constructs containing this cDNA are expressed by S. cerevisiae to give immunoreactive rCrFC. The rCrFC produced from both CrFC21 and CrFC26 constructs, solubilized by Triton X-100 or SDS, is found to be immunoreactive. Solubilized rCrFC was purified as a proenzyme and reversibly protected from activation by addition of Me_2SO.

Figure 7 is to be published

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