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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :
C12N 15/63, 15/55, C12Q 1/37

A1

(11) International Publication Number: WO 99/15676

(43) International Publication Date: 1 April 1999 (01.04.99)

(21) International Application Number: PCT/SG98/00073

(22) International Filing Date: 18 September 1998 (18.09.98)

(30) Priority Data:
60/058,816 19 September 1997 (19.09.97) US
09/081,767 21 May 1998 (21.05.98) US

(81) Designated States: SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
*With international search report.*
*Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.*

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IP055
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? Miss Tan said follow this one. Jan. 18/01.

(54) Title: A NOVEL GENERATION OF CLONED HORSESHOE CRAB RECOMBINANT FACTOR C FOR DETECTION AND REMOVAL OF ENDOTOXIN

(57) Abstract

The horseshoe crab, *Carcinoscropius rotundicauda* Factor C cDNA (CrFC21) has been cloned into a shuttle baculoviral vector. The recombinant baculoviral DNA was then transfected into the insect cells for expression of recombinant Factor C. Recombinant Factor C was found to be immunoreactive and is capable of binding both free and bound/immobilized lipid A. It is enzymatically active when triggered by LPS. The rFC is probably of the two-chain form, being cleaved into the heavy and light chains after activation by Gram negative bacterial endotoxin. As low as 0.01 pg (0.001 ng/ml) of LPS was detectable by the rFC, thus, indicating its potentials as a novel generation of "limulus amoebocyte lysate".

