

JAPAN ROUNDUP

Scientists at Kewpie Jyozo Co., Ltd. (Tokyo), working in collaboration with Tokyo Metropolitan University's Katsutoshi Yoshisato, have isolated a novel cell growth and adhesion factor from the membranes that line the inner surface of egg shells. This factor stimulates the growth of cultured human skin cells 10-fold; potentially, it could be used commercially to produce artificial skin.

Egg membrane extracts are components of a traditional folk medicine used by Sumo wrestlers to speed wound-healing. An ancient textbook of traditional Chinese medicine also recommends egg membrane extracts for treating burns.

Scientists at Kyowa Hakko (Tokyo) have discovered two novel inhibitors of calmodulin, a calcium-binding protein that activates a variety of enzymes in tissues throughout the body. The researchers isolated the two new

inhibitors from a strain of mushrooms (other calmodulin inhibitors, by contrast, have been isolated from soil bacteria). The compounds consist of six chlorinated hexagonal carbon rings.

Calmodulin-calcium complexes activate many different enzymes—including a class of kinases that phosphorylate other proteins. These activated kinases are thought to play a role in the secretion of substances that constrict blood vessels (resulting in high blood pressure) and cause allergic reactions. Calmodulin inhibitors, therefore, are good candidates as drugs to treat these conditions.

Scientists at Teijin, Inc. (Osaka), working in collaboration with members of the Research Institute for Chemical and Serological Therapies, are the first in Japan to begin producing human blood-clotting factor VIII using recombinant DNA techniques.

Instead of producing the full-length glycoprotein, the researchers deleted the central third portion of the protein (the B domain; amino acid residues 740–1649), which apparently does not play a role in the clotting reaction. Following amplification, cells harboring the recombinant expression vector produced two units of factor VIII per milliliter of culture medium. Its specific activity is the same as that of the native protein.

Because the amino acid sequence of the truncated factor VIII protein differs from that of the native protein, however, it may be immunogenic. Extensive safety tests will be necessary before it can be used to treat type A hemophilia (which afflicts about 2,500 Japanese).

Abstracted from Biotechnology in Japan Newsservice by Yoriko Kishimoto and Ken Coleman, Japan Pacific Associates (Palo Alto, CA).

Repligen IPA-300: The Protein A that gets there on time

Now you don't have to face any order backlog for the Protein A you need tomorrow. Repligen delivers ultrapure and immobilized rProtein A when you need it. You can get 2 milliliters or 2 liters of IPA-300* shipped today. And Repligen also guarantees high binding and virtually no leakage to the toughest specifications in the industry. That means IPA-300 delivers the consistent purity you need for single pass purification of therapeutic grade monoclonal antibodies. Plus our FDA Drug Master File provides full documentation to speed the preparation of your IND submission. Call today for the Protein A that gets there on time and saves you time. Repligen's IPA-300.

RepliGen

One Kendall Square
Building 700
Cambridge, Massachusetts 02139
1-800-622-2259
Telefax 617-494-1786

Use of this product* for IgG binding is licensed from Pharmacia



Write in No. 117 on Reader Service Card