A New Approach to Automated Peptide Synthesis

Applied Biosystems is pleased to announce the first instrument designed for high efficiency peptide synthesis. The key to the high coupling yield of the Model 430A Peptide Synthesizer is an activation unit which converts the amino acid to a very efficient acylating species immediately prior to the coupling step. The defined protocol has been optimized for general peptide synthesis, but the fully programmable system allows straightforward adaptation to other chemistries.

Cycle times with the general synthesis protocol are approximately one hour. A single loading of protected amino acids, reagents, and solvents will give up to 50 synthesis cycles. To insure high coupling yields, Applied Biosystems manufactures and supplies all synthesis reagents.

The data below summarize the results of the synthesis of the decapeptide Acyl Carrier Protein (65-74). These results illustrate the combined capabilities of the novel automated synthesis procedure and the high quality peptide synthesis reagents and loaded resins.

The new Model 430A Peptide Synthesizer is being introduced in the U.S. at FASEB and in Europe at Analytica. Write or phone if you’d like more information.

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**Amino acid incorporation during assembly of Acyl Carrier Protein residues 65-74.**

**HPLC chromatogram of crude, HF cleaved Acyl Carrier Protein (65-74).**

**ANALYTICAL METHOD**

<table>
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<tr>
<th>STEP YIELD (%)</th>
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<td>Gly</td>
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**REFERENCE**

Whether you’re thinking retirement or not, review the plan that provides for cash withdrawal and/or a lifetime income.

TIAA-CREF Supplemental Retirement Annuities (SRAs) offer you substantial flexibility including cash withdrawal and/or lifetime retirement income. You can even reduce your income taxes now!

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Complete and mail the coupon for an SRA Information Kit today. You’ll get full details about all the advantages SRAs have to offer, why this plan suits so many financial situations and age groups and how much you may contribute to the plan.

*TIAA-CREF provides annuities and other services for employees of colleges, universities, private schools and certain other nonprofit tax-exempt educational and research institutions.

HELP YOURSELF TO A BRIGHTER FINANCIAL FUTURE ...SEND FOR A FREE INFORMATION KIT.
The New Bio-Response MCT* (Mass Culturing Technique) System Delivers Monoclonal Antibodies And Other Mammalian Cell Products When You Need Them—From Grams To Kilograms.

Insufficient quantities of desired peptides are a key cause of expensive research and production delays. The MCT system is a new and unique mammalian cell culturing process designed to overcome the obstacle of insufficient quantities of peptides by delivering the quantity you need... when you need it! Additionally, every step in MCT production has been developed to contain costs now and in the future while maintaining exceptional purity and quality in mammalian cell proteins.

**Quantity**

Unlike conventional cell-culture methods, the MCT system uses "fresh," flowing lymph directly from a cow. Following treatment, the lymph is continuously diffused into and out of a growth chamber. This nearly in vivo growth environment stimulates continuous and optimal protein secretion. The result? Large quantities of desired proteins enabling you to move to the clinic or market... faster.

**Cost**

Unlike conventional cell-culture methods that require extensive labor forces and expensive growth mediums, Bio-Response’s MCT is a closed, steady-state system. In essence, the MCT system starts with a low-cost lifeline—a feeding cow—and ends with a pure, quality product. MCT... an optimal system at low cost.

**Purity**

Unlike conventional cell-culture methods, the MCT system is designed to insure purity without tedious processing. By directing the lymph across semi-permeable membranes, MCT provides both separation of media protein from desired cell products, and a continuous nutrient flow. The ability to add or withdraw from the chamber to maintain optimal cell density permits continuous harvest of a highly pure product.

**Quality**

Unlike conventional methods of production that attempt to create biologically active mammalian cell products, the MCT system provides a pure-mammalian product—an exact copy of the original protein and, in the case of non-antibody polypeptides, uncompromised by inappropriate glycosylation and disulfide bond formation. There is a growing consensus favoring products produced in a mammalian cell-culture system, such as the Bio-Response MCT system.

For further information, call Bio-Response, Inc. at (415) 786-9744.

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