Polycyclic aromatic carcinogens

[7, 10-14C] Benzo[a] pyrene
5-15mCi/mmole  CFA.471

[6-3H] Benzo[a] pyrene*
5-20Ci/mmole  TRK.66

[6-3H] Benzo[a] pyrene*
20-30Ci/mmole  TRK.501

7, 12-Dimethyl[12,14C] benz[a] anthracene
5-15mCi/mmole  CFA.150

[6-3H] 7, 12-Dimethylbenz[a] anthracene*
>5Ci/mmole  TRK.142

[6-3H] 20-Methylcholanthrene*
5-15Ci/mmole  TRK.70

Also available as *custom preparation to order*:

[12,14C] Benz[a] anthracene  CFA.158

[6-3H] Benz[a] anthracene*
TRK.213

[7,14C] Dibenzo[a,h] anthracene  CFA.149

[6-3H] Dibenzo[a,h] anthracene  TRK.139

*The pattern of labelling has been determined by tritium nmr studies.

Please enquire for further details.

The Radiochemical Centre
Amersham

The Radiochemical Centre Limited, Amersham, England.
Tel: Little Chalfont (024 40) 4444.
In the Americas: Amersham/Searle Corp., Illinois 60005.
Tel: 312-593-6300.
In W. Germany: Amersham Buchler GmbH & Co., KG,
Braunschweig. Tel. 05307-4693-97.
ADVERTISING RATES

Cover and Special Positions £90
Full Page £70
Half Page £40
Quarter Page £25
Agency Commission 10%
Publisher’s Discount 10%

All communications regarding advertising matters should be addressed to:

Advertisement Section,
Biochemical Society,
7 Warwick Court,
London WC1R 5DP
Telephone: 01-242 1076
(4 lines)

THE BIOCHEMICAL JOURNAL

The Biochemical Journal

Cumulative Indices

Save Research Time
Busy researchers and authors find that these multi-volume indices are invaluable. Where time is money the cost is recovered quickly. Produced as a service to subscribers and priced accordingly.

Volumes £ p U.S.$
21–30 0.75 2.50
31–40 2.00 5.50
41–65 2.75 7.50
66–90 3.25 9.00
91–115 5.25 13.00
116–130 5.50 15.00

All prices include postage (by surface mail to overseas)

Available from:
The Biochemical Society
/Publications
PO BOX 32 Commerce Way
Whitehall Industrial Estate
Colchester CO2 8HP Essex

(iv)
BIOCHEMICAL SOCIETY SYMPOSIA SERIES

No. 36  NEUROTRANSMITTERS AND METABOLIC REGULATION

Edited by R. M. S. SMELLIE

1972 169 pp.  £4.00 ($12.00)

No. 37  THE STRUCTURE AND FUNCTIONS OF EUKARYOTIC RIBOSOMES

Edited by R. M. S. SMELLIE

1973 130 pp.  £3.50 ($10.50)

No. 38  NITROGEN METABOLISM IN PLANTS

Edited by T. W. GOODWIN and R. M. S. SMELLIE

1973 351 pp.  £8.00 ($20.00)

No. 39  CALCIUM AND CELL REGULATION

Edited by R. M. S. SMELLIE

1974 151 pp.  £5.00 ($13.50)

No. 40  THE METABOLISM AND FUNCTION OF GLYCOPROTEINS

Edited by R. M. S. SMELLIE and J. G. BEELEY

1974 189 pp.  £7.00 ($17.50)

This volume records the proceedings of a symposium held in University College London in April 1974. Each of the ten papers is by an international authority and presents a survey of recent progress in certain aspects of the study of glycoproteins. Topics include methods of analysis, the nature of the carbohydrate–peptide linkage, heterogeneity of glycoproteins, sites of glycosylation, assembly of the carbohydrate moieties, immunoglobulin synthesis, sialic acid modifications, the role of sialic acid and the structure of blood-group-specific glycoproteins in normal and transformed cells.

Available from your bookseller or agent, or direct from

THE BIOCHEMICAL SOCIETY (PUBLICATIONS)
P.O. Box 32, Commerce Way,
Colchester CO2 8HP, Essex

Leaflets giving details of contents of the above publications are available on request
THE BIOCHEMICAL SOCIETY
SPECIAL PUBLICATIONS SERIES

No. 1 BIOCHEMISTRY AND MENTAL ILLNESS
   Edited by L. L. IVERSEN and S. P. R. ROSE
   1973  251 pp.  £4.50 ($12.00)

No. 2 BIOCHEMISTS IN INDUSTRY
   Edited by K. W. FULLER
   1973  58 pp.  £1.25 (U.S. $3.50)

No. 3 THE METABOLISM AND FUNCTION OF VITAMIN D
   Edited by D. R. FRASER
   1974  114 pp.  £4.00 ($10.50)

No. 4 MEMBRANE ADENOSINE TRIPHOSPHATASES AND TRANSPORT PROCESSES
   Edited by J. R. BRONK
   1974  197 pp.  £5.00 ($12.50)

Available from your bookseller or agent, or direct from
THE BIOCHEMICAL SOCIETY (PUBLICATIONS)
P.O. Box 32, Commerce Way,
Colchester CO2 8HP, Essex

Leaflets giving details of contents of the above publications are available on request
GUIDANCE FOR AUTHORS


The forced expiratory time as a measure of small airway resistance. By N. K. Burki and Mary C. Dent.


Stimulated flow of pancreatic and biliary secretions after intestinal exposure to cholera toxin. By I. Freiman and R. N. Melmed.


SHORT COMMUNICATIONS


Effects of p-chlorophenoxysisobutyrate on free fatty acid mobilization from canine subcutaneous adipose tissue in situ. By N. E. Miller, O. D. Mjos and M. F. Oliver.

Subscription: £2.75 ($8.50) per part; £28.00 ($100.00) per year.
Orders may be placed with your bookseller, or sent direct to the publishers.

BLACKWELL SCIENTIFIC PUBLICATIONS LTD
5 ALFRED STREET, OXFORD OX1 4HB, ENGLAND
The Cytochalasins:
(Greek: cytos, cell; chalasis, relaxation)

Versatile Probes for Cytological Research

The Cytochalasins are a group of structurally related fungal metabolites discovered in 1964 in the laboratories of the Pharmaceuticals Division of Imperial Chemical Industries, Ltd. The Cytochalasins share a number of unusual, interesting and characteristic effects on the cell and are becoming increasingly important as research probes in cytology. To date, Cytochalasin B has been used in the vast majority of reported experiments.

Major biological effects observed with the Cytochalasins include:

1. Inhibition of the division of cytoplasm. Total inhibition of cytoplasmic cleavage is obtained without interference with division of the nucleus resulting in binucleate cells. If cultured cells are allowed to remain in the active medium, nuclear division continues and large multinucleate cells are observed.

2. Reversible inhibition of cell movement. When moving L cells on a glass surface are treated with Cytochalasin B, peripheral and internal cell movements disappear, but are readily restored by washing the cells with normal medium. This effect is best observed by time-lapse cinematographic studies.

3. Induction of nuclear extrusion. In this very interesting phenomenon, it is remarkable that a cell can be induced to eject its nucleus entirely within minutes of treatment with a chemical compound. Most noteworthy is the fact that Cytochalasin E rarely produces nuclear extrusion. However, it is unique in producing a "halo" around the nucleus.

The Cytochalasins also exert inhibitory effects on the following biological processes: phagocytosis, platelet aggregation and clot retraction, glucose transport, thyroid secretion, and release of growth hormone.

Cytochalasin A has been shown to be a sulfhydryl-reactive agent, inhibiting growth and sugar uptake in Saccharomyces strain 1016.

The antibiotic and antitumor activities of Cytochalasin D have been reported.

Research continues to uncover new biological effects for these Cytochalasins. Space does not allow us to cite the several hundred references from the literature but a data sheet and comprehensive bibliography are available upon request.

Cytochalasins A, B and E are manufactured in England by Imperial Chemical Industries, Ltd. and are distributed by Aldrich.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Formula</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cytochalasin A</td>
<td>CH(CH₂)₆CH₂ HO</td>
<td>10mg $60.00</td>
<td></td>
</tr>
<tr>
<td>Cytochalasin B</td>
<td>C₂H₅O(CH₂)₄OCH₂</td>
<td>10mg $36.00</td>
<td></td>
</tr>
<tr>
<td>Cytochalasin C</td>
<td>CH₂(CH₂)₄CH₂ HO</td>
<td>50mg $150.00</td>
<td></td>
</tr>
<tr>
<td>Cytochalasin D</td>
<td>CH₂(CH₂)₄CH₂ HO</td>
<td>10mg $75.00</td>
<td></td>
</tr>
<tr>
<td>Cytochalasin E</td>
<td>CH₂(CH₂)₄CH₂ HO</td>
<td>10mg $75.00</td>
<td></td>
</tr>
<tr>
<td>Cytochalasin F</td>
<td>CH₂(CH₂)₄CH₂ HO</td>
<td>10mg $60.00</td>
<td></td>
</tr>
</tbody>
</table>

Aldrich Chemical Company, Inc.
Craftsmen in Chemistry

Corporate Offices:
Aldrich Chemical Co., Inc.
940 W. Saint Paul Ave.
Milwaukee, Wisconsin 53233
U. S. A.

Great Britain:
Aldrich Chemical Co., Ltd.
The Old Brickyard, New Road
Gillingham, Dorset SP8 4JL
England

Belgium:
Belgium/Continental Europe:
Aldrich-Europe B-2340 Beerse
Belgium

West Germany:
West Germany/Continental Europe:
EGA-Chemie KG
7924 Steinhelm am Albuch
West Germany

Printed in Great Britain by
William Clowes & Sons Limited, London, Colchester and Beccles