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Highly Purified

HUMAN THROMBIN
Essentially devoid of other known non-activated and activated clotting factors as well as Plasminogen and Plasmin.

LYOPHILIZED GRADES

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Electrophoretic Purity</th>
<th>NIH U/mg Protein</th>
<th>Tentative Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>250 NIH Units</td>
<td>1000 NIH Units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 vials</td>
<td>(premeasured)</td>
</tr>
<tr>
<td>T 6759</td>
<td>Ess. Homogen.</td>
<td>3000 (min)</td>
<td>£14.33</td>
</tr>
<tr>
<td>T 6884</td>
<td>&gt;80%</td>
<td>2000 (min)</td>
<td>£12.99</td>
</tr>
<tr>
<td>T 7009</td>
<td>&gt;50%</td>
<td>1000 (min)</td>
<td>£11.20</td>
</tr>
</tbody>
</table>

Includes shipping costs via Air (CIF).
The premeasured vials are convenient for routine use in the Thrombin-Time test, platelet aggregation function, etc.

Excess rehydrated Thrombin solutions can be stored for several months below 20°C.

Protein determined per Lowry et al: JBC 193:265 (1951) and by absorbancy at 280 nm prior to lyophilization.

LIQUID GRADE

<table>
<thead>
<tr>
<th>Product No.</th>
<th>From Human Plasma.</th>
<th>250 units</th>
<th>1000 units</th>
<th>2500 units</th>
<th>5000 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 3010</td>
<td>Frozen solution with 0.05M Sodium Citrate: 0.15M Sodium Chloride, pH 6.5 Activity: 3000 (min) NIH units per mg Protein (Lowry). Approximately 5000 NIH units per ml for quantities of 2500 units and over. Smaller package sizes contain approximately 500 NIH units per ml. Suggested for research applications that require highest purity available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Includes shipping costs via Air (CIF) within the Continental USA, excluding Alaska.

Shipped in dry ice, FOB St. Louis via Air Freight to Hawaii, Alaska and all other Countries.

We also offer:

A 7388 ANTITHROMBIN III (Factor Xa Inhibitor)
From Human Plasma. Essentially Homogeneous by electrophoresis.
Unit Definition: 1 unit is the activity present in 0.1 ml normal Human pooled plasma tested in the presence of 0.1 unit of Heparin.

A 7513 HUMAN ANTITHROMBIN III ANTISERUM
Produced in Rabbit, Lyophilized.

And Several BOVINE BLOOD COAGULATION FACTORS:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2-7D</td>
<td>Factor II &amp; VII Deficient Plasma</td>
<td>F 4253</td>
</tr>
<tr>
<td>B7-10D</td>
<td>Factor VII &amp; X Deficient Plasma</td>
<td>B5-3000</td>
</tr>
<tr>
<td>B27,10D</td>
<td>Factor II, VII &amp; X Deficient Plasma</td>
<td>F 4003</td>
</tr>
<tr>
<td>BBSE</td>
<td>Plasma Barium Sulfate Eluate</td>
<td>870-10</td>
</tr>
<tr>
<td>RBC</td>
<td>Rabbit Brain Cephalin</td>
<td>V 2501</td>
</tr>
<tr>
<td>RVC-L</td>
<td>Russell’s Viper Venom in Cephalin</td>
<td></td>
</tr>
</tbody>
</table>

Also, for the Determination of Plasma HEPARIN, Request Technical Bulletin No. 870

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Vol. 50, No. 1 January 1976

CONTENTS

Guidance for authors

The fate of circulating lactate dehydrogenase-5 in the rabbit. By A. R. QURESHI and J. H. WILKINSON

Effect of liver failure on the cerebral circulatory and metabolic responses to hypoxia in the goat.
By N. N. STANLEY and N. S. CHERNIACK

Effect of liver failure on the ventilatory response to hypoxia in man and the goat. By N. N. STANLEY, S. G. KELSEN and N. S. CHERNIACK

The pattern of venous drainage of surgically created side-to-side arteriovenous fistulae in the human forearm. By J. P. JAMISON and W. F. M. WALLACE

Measurement by venous occlusion plethysmography of blood flow through surgically created arteriovenous fistulae in the human forearm. By W. F. M. WALLACE and J. F. JAMISON

The role of the colon in urea metabolism in man. By J. A. GIBSON, N. J. PARK, G. E. SLADEN and A. M. DAWSON

Synthesis of folate polyglutamates in human cells. By A. V. HOFFBRAND, E. TRIPP and A. LAVOIE

A comparison of the clearance of urographic contrast medium (sodium diatrizoate) by peritoneal and haemodialysis. By P. ACKRILL, C. S. McINTOSH, C. NAMMON, L. R. I. BAKER and W. R. CATTELL

SHORT COMMUNICATIONS

Acid hydroxase activities and lysosomal integrity in liver biopsies from patients with iron overload. By T. J. PETERS and CAROL A. SEYMOUR

Absence of an acute effect of calcium or parathyroid hormone administration on plasma renin activity in man. By S. EpSTEIN, J. SAGEL, H. BRODOVCKY, S. TUFF and L. EALES

Ventilatory response to carbon dioxide in tetanus. By O. O. ELEGBELEYE and D. FEMI-PEARSE

Effects of halothane on pulmonary inactivation of noradrenaline and prostaglandin in anaesthetized dogs. By Y. S. BAKHLE and A. J. BLOCK

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(xii)
(-)-p-Bromotetramisole: a potent alkaline phosphatase inhibitor

In the process of evaluating the biochemical effects of Tetramisole (dl-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazole hydrochloride), a broad-spectrum anthelminthic, it was discovered that the compound was a potent inhibitor of alkaline phosphatase. Consequently, similar studies were undertaken on the analogs of Tetramisole. Its levorotatory isomer, Levamisole (R12456, l-Tetramisole, l-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazole hydrochloride) and R8231 [dl-6-(m-bromophenyl)-2,3,5,6-tetrahydroimidazo[2,1-b]thiazole oxalate] proved to be potent, stereospecific, noncompetitive inhibitors of alkaline phosphatase from various tissues, yet showed no inhibition of the intestinal isoenzyme. The d-isomers were completely inactive.

l-p-Bromotetramisole (R30402) has been found to be more potent than Levamisole as an inhibitor of alkaline phosphatase. The inactive d-isomer, d-p-bromotetramisole (R30401), is useful as an internal control.

The organo- and stereospecificities of these alkaline phosphatase inhibitors have been demonstrated biochemically as well as cytotoxicity in a variety of tissues and species. Specific phosphatase activities are not altered by these compounds. Thus, this high degree of specificity allows the differentiation between "true" 5'-nucleotidase, Na-K-ATPase, Mg-ATPase or glucose-6-phosphatase and non-specific alkaline phosphatase, the latter being totally suppressed upon addition of the inhibitor.

l-p-Bromotetramisole is reportedly more appropriate for the quantitative determination of the intestinal and placental isoenzymes in human serum than the commonly used L-phenylalanine.

l-p-Bromotetramisole has several advantages over Levamisole and R8231:
1. potency - it is ten times as potent as Levamisole
2. stability - it is more stable in aqueous solution than R8231
3. the availability of both levo- and dextro-isomers.

References:
6) H. Van Belle, submitted for publication.
10) H. Van Belle, submitted for publication.

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