

TSK-GEL® Hydrophobic Interaction Columns



SUPELCO

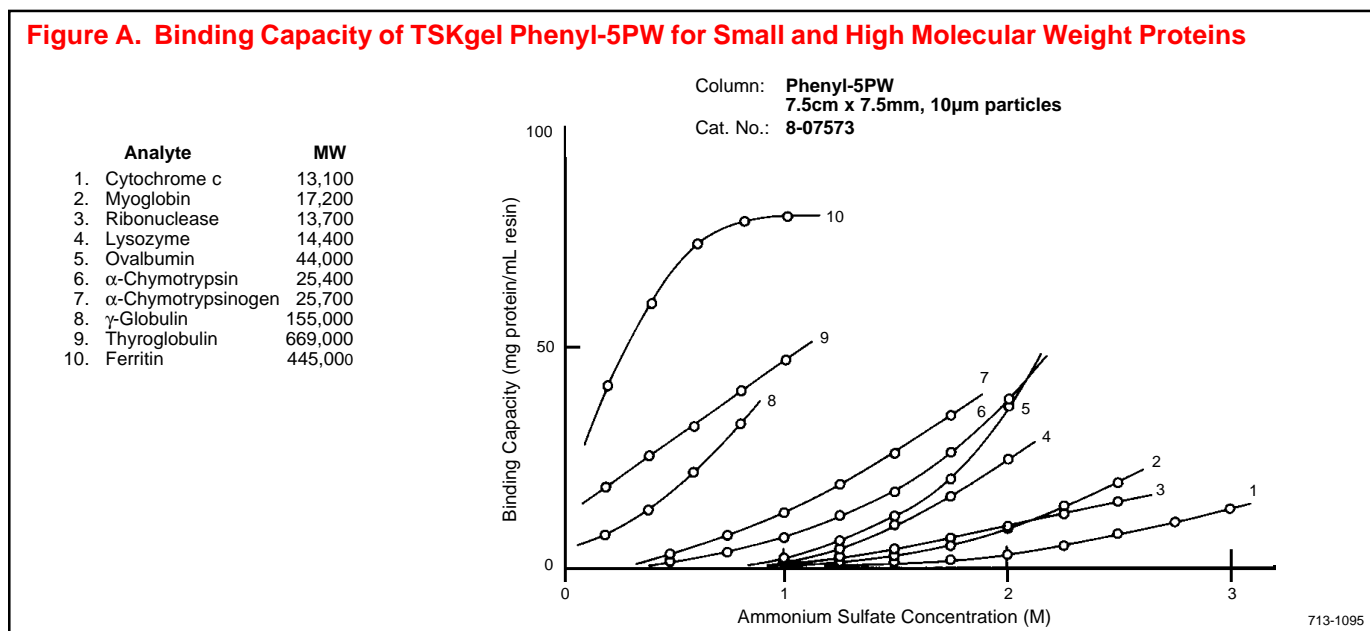
Both hydrophobic interaction chromatography (HIC) and reversed phase liquid chromatography (RPLC) separate on the basis of protein hydrophobicity and allow selective binding and desorption of proteins. However, HIC operates at significantly lower binding energy and uses aqueous mobile phases. These characteristics provide a gentle technique that is less likely to disturb protein conformation. As a result, HIC generally provides better activity recovery. TSKgel Ether, TSKgel Phenyl, and TSKgel Butyl resin-based columns provide a range of hydrophobicities for chromatographic optimization. Ammonium sulfate concentration can be minimized by using a very hydrophobic packing (e.g., butyl). TSKgel Ether columns are recommended for purifying very hydrophobic proteins. Scale-up can be performed by using corresponding Toyopearl® bulk resins (see the Supelco catalog).

Characteristics of TSK-GEL Hydrophobic Interaction Columns

Characteristic	TSK-GEL Column		
	Ether-5PW	Phenyl-5PW	Butyl-NPR
Matrix	hydrophilic resin [▲]	hydrophilic resin [▲]	hydrophilic resin
Particle Size (µm)	10	10	2.5
Pore Size (Å)	1000	1000	nonporous
pH Range	2 - 12	2 - 12	2 - 12
Cleaning Reagent	0.2M NaOH	0.2M NaOH	0.2M NaOH

▲ Modified TSKgel G5000PW

Figure A. Binding Capacity of TSKgel Phenyl-5PW for Small and High Molecular Weight Proteins



Ordering Information: TSK-GEL Hydrophobic Interaction Columns

Column	Packing Particle Size (µm)	Column Dimensions		Cat. No.
		Length (cm)	Diameter (mm)	
TSKgel Butyl-NPR	2.5	3.5	4.6	8-14947
TSKgel Ether-5PW	10	7.5	7.5	8-08641
TSKgel Ether-5PW guard column kit	20	—	—	8-08643
TSKgel Ether-5PW packing (5mL)	20	—	—	8-08644
TSKgel Phenyl-5PW	10	7.5	7.5	8-07573
TSKgel Phenyl-5PW guard column kit	20	—	—	8-07652
TSKgel Phenyl-5PW packing (5mL)	20	—	—	8-07651

Guard column kits include 1cm x 6.0mm column, column holder, 5mL packing, 2 frits, 2 nuts and ferrules for 1/16" tubing, 5cm of 1/16" tubing.

Technical Information:

Bulletin 862—TSK-GEL Nonporous Resin Columns.

Toyopearl and TSK-GEL are registered trademarks of Tosoh Corp.

For more information, or current prices, contact your nearest Supelco subsidiary listed below. If your country is not listed, see the Supelco catalog for a complete list of all Supelco representatives, or contact Supelco, Bellefonte, PA 16823-0048 USA.

ARGENTINA · Sigma-Aldrich de Argentina, S.A. · Buenos Aires 1119 AUSTRALIA · Sigma-Aldrich Pty. Ltd. · Castle Hill NSW 2154 AUSTRIA · Sigma-Aldrich Handels GmbH · A-1110 Wien
 BELGIUM · Sigma-Aldrich N.V./S.A. · B-2880 Bornem BRAZIL · Sigma-Aldrich Quimica Brasil Ltda. · 01239-010 São Paulo, SP CANADA · Sigma-Aldrich Canada, Ltd. · 2149 Winston Park Drive, Ontario L6H 6J8
 CZECH REPUBLIC · Sigma-Aldrich s.r.o. · 186 00 Praha 8 FINLAND · Sigma-Aldrich Finland/YA-Kemia Oy · FIN-00700 Helsinki FRANCE · Sigma-Aldrich Chimie · 38297 Saint-Quentin-Fallavier Cedex
 GERMANY · Sigma-Aldrich Chemie GmbH · D-82041 Deisenhofen GREECE · Sigma-Aldrich (o.m.) Ltd. · Ilioupoli 16346, Athens HUNGARY · Sigma-Aldrich Kft. · H-1067 Budapest
 INDIA · Sigma-Aldrich Co. · Hyderabad 500 033 IRELAND · Sigma-Aldrich Ireland Ltd. · Dublin 24 ISRAEL · Sigma Israel Chemicals Ltd. · Rehovot 76100 ITALY · Sigma-Aldrich s.r.l. · 20151 Milano
 JAPAN · Sigma-Aldrich Japan K.K. · Chuo-ku, Tokyo 103 MEXICO · Sigma-Aldrich Química S.A. de C.V. · 14210 México D.F. NETHERLANDS · Sigma-Aldrich Chemie BV · 3331 LL Zwijndrecht
 NORWAY · Sigma-Aldrich Norway · Torshov · N-0401 Oslo POLAND · Sigma-Aldrich Sp. z o.o. · 61-663 Poznań SINGAPORE · Sigma-Aldrich Pte. Ltd.
 SOUTH AFRICA · Sigma-Aldrich (pty) Ltd. · Midrand 1685 SPAIN · Sigma-Aldrich Quimica, S.A. · 28100 Alcobendas, Madrid SWEDEN · Sigma-Aldrich Sweden AB · 135 70 Stockholm
 SWITZERLAND · Supelco · CH-9471 Buchs UNITED KINGDOM · Sigma-Aldrich Company Ltd. · Poole, Dorset BH12 4QH
 UNITED STATES · Supelco · Supelco Park · Bellefonte, PA 16823-0048 · Phone 800-247-6628 or 814-359-3441 · Fax 800-447-3044 or 814-359-3044 · email:supelco@sial.com

Supelco is a member of the Sigma-Aldrich family. Supelco products are sold through Sigma-Aldrich, Inc. Sigma-Aldrich warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product for a particular use. Additional terms and conditions may apply. Please see the reverse side of the invoice or packing slip.