

INTRODUCTION	3-8
NEW PRODUCTS	3
Ordering	4
Return Policy	4
Limited Warranty	4
General Product Information	4
Shelflife and Storage	7
Nomenclature/Abbreviations	7
Custom Services	8
CAPPEL RESEARCH REAGENTS	9-97
CAPPEL PRIMARY AND SECONDARY ANTIBODIES	9
Antibodies to Human Antigens	10
Antibodies to Mouse Antigens	36
Antibodies to Rabbit Antigens	40
Antibodies to Rat Antigens	42
Antibodies to Other Antigens and Microorganisms	46
CAPPEL SECONDARY ENZYME CONJUGATES	56
Antibodies to Human Antigens	56
Antibodies to Mouse Antigens	59
Antibodies to Rabbit Antigens	62
Antibodies to Rat Antigens	64
Antibodies to Other Antigens	65
CAPPEL SECONDARY FLUOROCHROME CONJUGATES	68
Antibodies to Human Antigens	68
Antibodies to Mouse Antigens	72
Antibodies to Rabbit Antigens	76
Antibodies to Rat Antigens	77
Antibodies to Other Antigens	79
CAPPEL SPECIALITY ANTIBODY PRODUCTS	83
Biotinylated Secondary Antibodies	83
Antibody Affinity Gels	85
Peroxidase Anti-Peroxidase (PAP) Complexes	86
CAPPEL PURIFIED ANTIGENS	86
CAPPEL ACCESSORY REAGENTS	93
Avidin-Biotin Reagents	93
Embedding Media-Fluorescence Microscopy	94
Fluorescein Isothiocyanate	94
Freund's Adjuvants	94
I.D. Disks for ODD Techniques	94
LSM [®] -Lymphocyte Separation Medium	94
Hypronosticon [™]	94
Peroxidase Substrates	95
Protein A Reagents	95
Immunodetection Kits	96
Murine Antibody Reagents	96

IMMUNOBIOLOGICALS	98-163
PRIMARY ANTIBODIES	98
Antibodies for Cell Biology.	98
Antibodies to Cytoskeletal Protein	98
Microfilament Antibodies	98
Microtubule Antibodies	101
Intermediate Filament Antibodies	103
Monoclonal Antibodies to Keratins	103
Cell Adhesion and Associated Antibodies	104
Antibodies to Extracellular Matrix Proteins	106
Antibodies to Human Leukocyte Antigens	110
Cluster Determinant Antibodies	110
HLA Associated Antibodies	110
Antibodies for Signal Transduction	111
Monoclonal Antibodies to Tyrosine Kinase	111
Antibodies to Phospholipid Binding Proteins	112
Apoptosis Antibodies	112
Other Signal Transduction Antibodies	113
Neuroscience Antibodies	116
Antibodies to Growth Factors/Cytokines	116
Antibodies to Colony Stimulating Factor	116
Antibodies to Epidermal Growth Factor	116
Antibodies to Interferons	116
Antibodies to Interleukins	117
Antibodies to Tumor Necrosis Factor	117
Antibodies for Cancer Research	117
Tumor Associated and Related Antibodies	117
Lymphoma Identification Products	120
Antibodies for Tumor Identification	121
Antibodies for Molecular Biology	122
Antibodies to Bromodeoxyuridine	122
Antibodies to Dinitrophenol	122
Nuclear Protein and Other Antibodies	122
Antibodies to Viral Protein Antigens	125
Antibodies to Bioactive Peptides and Hormones	125
Other Antibodies.	126
Human Protein Antibodies	126
Animal Protein Antibodies	127
Miscellaneous Antibodies	129
IMMUNOGLOBULINS	131
Antibodies to Human Immunoglobulins	131
Antibodies to Animal Immunoglobulins	132
SECONDARY ANTIBODY CONJUGATES	135
Alkaline Phosphatase Conjugates	135
Glucose Oxidase Conjugates	136
AMCA Conjugates	138
FITC Conjugates	139
Phycocerythrin Conjugated	141

SECONDARY ANTIBODY CONJUGATES cont'd.

Texas Red® Conjugates 141
 TRITC Conjugates 142
 Biotinylated Antibodies 142
 Gold Labeled Conjugates. 143
 Radiolabeled Antibody Conjugates. 144
 PAP Complexes 145

IMMUNODETECTION SYSTEMS 146

Western Blotting Kits 146
 ELISA Detection Systems 147
 Immunodiffusion Products 148
 Human Subclass RID Kits 148
 Animal Immunoglobulin and Protein RID Kits 148
 Immunohistology Kits 149
 ImmuMark™ Universal Kits. 149
 Animal Monoclonal Typing Kit 149
 Accessories and Reagents 149

PURIFIED PROTEINS 150

Purified Proteins 150
 Blood Proteins 150
 Cytoskeletal Proteins 151
 Proteoglycans 151
 Immunoglobulins 151
 Myeloma Source Immunoglobulins. 152
 Miscellaneous Proteins 152

SUPPLEMENTARY REAGENTS 152

Labeling Reagents 152
 Substrates and Buffers 153
 Alkaline Phosphatase Substrates. 153
 Peroxidase Substrates 155
 Chemiluminescence Substrates 157
 Other Substrates and Related Products 157
 Biological Buffers 158
 Purification Reagents. 159
 Other Reagents. 161
 Coombs' Reagents 161
 Freund's Adjuvants 162
 Mounting and Embedding Media 162
 Miscellaneous Products 162

CLONE INDEX 164-169

ALPHABETICAL INDEX 170-192

New Products

ICN is pleased to introduce the following new antibodies. We hope they will be useful in advancing your research.

Product Name	Size	Catalog	Page Number
Amyloid Precursor Protein Antiserum	100 µl 250 µl 500 µl	640021 640022 640023	116
Amyloid Precursor Protein Fragment Frameshift Mutagen Antiserum	100 µl 250 µl 500 µl	640031 640032 640033	116
Amyloid Precursor Protein Peptide Antiserum	100 µl 250 µl 500 µl	640041 640042 640043	116
Brain Type 1 Sodium Channell Anti-Rat (rb) Affin	200 µl	12015	42
Brain Type 11 Sodium Channel Anti-Rat (rb) Affin	200 µl	12018	42
Brain Type III Sodium Channel Anti-Rat (rb) Affin	50 µl 200 µl	12082 12020	42
Calpain Clone: 28F3	100 µg	632121	112
Calpain p30 Clone: 28F3	500 µl 1 ml	632132 632131	112
Calpain I, p80 Clone: 15C10	100 µg	632141	112
Capsaicin Receptor Anti-Human (rb) BSA Conjugated	50 µl	12002	15
Chapsyn-110 Anti-Human (rb) Affin	50 µl 200 µl	12007 12008	15
CLC-2 Anti-Human (rb) Affin	50 µl 200 µl	12080 12024	16
Colony Stimulating Factor Anti-Human (sh)	500 µl	695101	116
Dinitrophenol Anti-DNP	200 µg	630132	122
Dynamin II Anti-Human (rb)	50 µg 100 µg	692211 692212	99
HA Clone: 12CA5	100 µg	632191	113
IgE e-Specific Anti-Dog (gt) Affin HRP Conjugated	200 µg 500 µg 1 mg	644011 644021 644031	136
IgE e-Specific Anti-Dog (gt) Affin FITC Conjugated	200 µg 500 µg 1 mg	644021 644022 644023	139
IgE e-Specific Anti-Dog (rb) Affin	200 µg 500 µg 1 mg	644031 644032 644033	133
KV 1.1 Anti-Mouse (rb)	200 µl	12030	39
KV 1.2 Anti-Rat (rb) Affin	50 µl 200 µl	12025 12026	44
KV 1.3 Anti-Human (rb) Affin	2 ml	55130	28
KV 1.4 Anti-Rat (rb) Affin	50 µl	12029	44
KV 1.5 Anti-Mouse (rb) Affin	50 µl 200 µl	12030 12031	39

KV 1.6 Anti-Rat (rb) Affin	50 µl	12032	44
KV 2.1 Anti-Rat (rb)	50 µl 200 µl	12033 12034	44
KV 3.1 b Anti-Rat (rb) Affin	200 µl	12037	44
KV 3.2 Anti-Rat (rb) Affin	50 µl 200 µl	12038 12039	44
KV 4.3 Anti-Rat (rb) Affin	50 µl 200 µl	12085 12086	44
Liver S9 Homogenate, Post Mitochondrial Supernatant Lyophilized	2 ml	50422	91
C-Myc Clone: 9E10	100 µg	632181	114
NSF Clone: NSF-1	100 µg	632161	129
P2X1 Purinergic Receptor Anti-Rat (rb) Affin	50 µl 200 µl	12009 12010	45
P2X2 Anti-Rat (rb) Affin	50 µl 200 µl	12035 12036	45
P2X4 Anti-Rat (rb) Affin	50 µl 200µl	12011 12012	45
P2X7 Purinergic Receptor Anti-Rat (rb) Affin	50 µl 200 µl	12083 12084	45
Pan Sodium Channel Anti-SP19	50 µl 200 µl	12021 12087	45
Parkin N-Terminal Peptide Antiserum	100 µl 250 µl 500 µl	640081 640082 640083	116
Presenilin-1 Peptide Antiserum	100 µl 250 µl 500 µl	640061 640062 640063	116
Presenilin-2 Peptide Antiserum	100 µl 250 µl 500 µl	640071 640072 640073	116
Prion PrP ₂₇₋₃₀ Peptide Antiserum	100 µl 250 µl 500 µl	640051 640052 640053	116
RIN Clone: 18G4	100 µg	632211	112
RIT Clone: 14G7	100 µg	632201	115
SAP 102 Anti-Bovine (rb) Affin	50 µl 200 µl	12005 12006	53
α/β-SNAP Clone: S0006	100 µg	632171	130
α-Synuclein C-Terminal Peptide Anti-	10 µl 20 µl 50 µl	640011 640012 640013	116
Telomerase Assoc. Protein I Anti-Human (rb) Affin	50 µg 100 µg	692231 692232	130
Telomerase Reverse Transcriptase Anti-Human (rb) Affin	50 µg 100 µg	692221 692222	130
14-3-3 teta/tau Clone: 3B9	100 µg	632151	112
Vesicular Gaba Transporter Anti-Human (rb) BSA Conjugated	50 µl	12001	35
Vesicular Acetylcholine Transporter Ant-Human (rb)	50 µl	12004	35

Order Requirements

To expedite your order, please include the following information:

- Complete Shipping Address with Attention Name, Room Number and Complete Billing Address
- Purchase Order or Credit Card Number (include type of credit card; Credit Card, USA Only)
- Catalog Number, Product Name and Quantity
- Any Special Shipping or Packaging Requirements

All orders are F.O.B. from the shipping point unless otherwise specified. Freight charges will be prepaid and added to the final invoice. Standard payment terms are net 30 days from the original invoice date. **Prices are subject to change without prior notification and should be verified at the time of order.** All orders are subject to review and additional information may be requested. Certain toxic or hazardous materials will not be shipped to unqualified individuals. ICN reserves the right to discontinue any item without prior notification.

Shipping Information

Under normal circumstances, freight and handling charges are prepaid and added to the invoice. Certain items may require special handling, packaging or shipping. For these items, additional charges may be applied and added to the invoice. For international orders, contact your local ICN office or distributor for current freight charges and customs duties.

Orders for regularly stocked items are normally shipped the same business day by the most rapid and economical method. In the event an item is not in stock or if for any reason we are unable to completely fill an order, a partial shipment will be made unless otherwise instructed by the customer.

Pricing Policy

The sizes appearing in this catalog represent the most commonly requested quantities. We recommend to all customers that they contact ICN for current pricing and availability. ICN reserves the right to amend prices or to discontinue any item or change pack sizes without prior notification. Unless directed otherwise, all shipments will be made promptly for items which may have had nominal price increases (<5%). However, if the increase in price is significant (>5%), every attempt will be made to notify the customer prior to shipping the order. Any price reductions will automatically be applied to the invoice.

Product Use

Products and reagents supplied by ICN are for **Laboratory Use Only**. They are **not** to be used as drugs, food additives, cosmetics, household chemicals, agricultural products or pesticides. Although certain products may be used for investigation procedures in animals, neither the animals nor parts of animals used in such studies or any of the resulting products may be used as food for humans or other animals.

Limited Warranty

ICN warrants, that at the time of shipment, products conform to the specifications appearing in ICN literature and are supplied free from defects in materials and performance. If an ICN product fails to conform to the indicated specifications, ICN may choose to either replace the item at no additional charge or refund the full purchase price.

ICN makes no other warranty, expressed or implied, with respect to products which includes any warranty of merchantability or fitness for any particular purpose. If the product in question is a radiochemical, notification must be made within 60 days of receipt of the product or the "half-life" of the radioisotope contained in the product, unless otherwise approved in writing by ICN. No claim will be honored if the customer fails to notify ICN within the specified time period. **In no event shall ICN be liable for special, incidental or consequential damages of any kind!**

For further information about warranty terms and conditions, please refer to page 6 of the ICN Research Products Catalog or e-mail ICN Customer Service custserv@icnbiomed.com

Return Policy

The ICN Customer Service department is readily available to help you with your order and any questions which may arise. ICN requests that you please thoroughly inspect all packages immediately upon receipt and inform ICN of any discrepancies or damages. If any problems arise with your order, please retain all original packaging material and documents.

In the event any material requires return, please contact our Customer Service department to obtain proper instructions and authorization in the form of a "Return Goods Authorization" (RGA) number before returning any material. All authorized returns must be made within 30 days of issue of the RGA. **Under No Circumstances** will credit be given without prior authorization.

ICN will make every attempt to accommodate the return of merchandise. However, return authorization may not be granted for certain items providing ICN did not cause the error. These include most frozen and refrigerated products, expired products, products of custom orders, any item missing labels, components or instruction material (if provided), books and equipment removed from the original packaging, and all diagnostic kits and reagents.

If the shipment is duplicated, damaged, or incorrectly sent due to an ICN error, you will receive an immediate full credit to your account. Likewise, if any product fails to perform to its specifications as described in ICN literature, a credit will be issued and a new replacement order will be shipped and invoiced. Any items ordered incorrectly and receiving required return authorization may be subject to a 20% processing fee.

General Product Information

The primary aim of ICN Immunobiologicals is to provide high quality antibodies for use in the many laboratory procedures. The extensive immunochemical product line encompasses products characterized for use in gel diffusion techniques, precipitation, and electrophoresis, enzyme immunoassay, immunoblotting assays and various histology and cytology applications. For many of these procedures various grades of antibodies are available. An explanation of some of the terms used to define products is found in the following Table.

Specifications

The use of "approximately" implies a variation of not more than 10%. "Salt-free" implies exhaustive dialysis. Enzyme activities are expressed in units and the use of 'U' implies the conditions of assay and unit definitions established by the International Union of Biochemistry. The use of 'u' is indicative of a unit definition different from that of the IUB. Each lot of every product is individually assayed and a chemical credential is supplied with each shipment.

Chemical Credentials

Chemical credentials contain lot specific and detailed information about our products. Typical information includes a general description of the manufacturing methods, analysis methods, analysis results (specific for the lot), identification of additives/preservatives and storage conditions. Chemical credentials are available free on request from the Technical Service Department.

Conditions

Unless otherwise indicated, the products listed herein are for research or manufacturing use only. They are not to be used for diagnosis, for administration to humans or for drug purposes. Nothing disclosed herein is to be construed as a recommendation to use our products in violation of any patents. The information presented is believed to be accurate. However, said information and products are offered without warranty or guarantee since the ultimate conditions of use and the variability of the materials treated are beyond our control. We cannot be responsible for patent infringement or other violations that may occur with the use of these products.

What is the Protein Concentration?

Many of our antisera are assayed for specific antibody content by quantitative precipitin analysis; for these products the concentration of antibody in milligrams per milliliter is reported on the chemical credential which accompanies each product. We do not supply total protein concentration for any of our antisera. Often an approximation of antibody content is sufficient for setting up a procedure.

For those products that characterize antibody concentration by titer or dilution factor the following general rule can be applied:

Antibody Source	Specific Antibody	Total IgG	Total Protein
Rabbit Whole Serum	1-3 mg/ml	12-15 mg/ml	40-60 mg/ml
Goat Whole Serum	1-4 mg/ml	20-25 mg/ml	60-80 mg/ml
Sheep Whole Serum	1-4 mg/ml	15-20 mg/ml	70 mg/ml
Mouse Undiluted Ascites	1-4 mg/ml	4-5 mg/ml	9-10 mg/ml

Description of Immunochemicals

PRODUCT	DESCRIPTION	TOTAL IgG (mg/ml)	SPECIFIC IgG (mg/ml)	PRESERVATIVE	STORAGE	TECHNIQUES USED FOR CHARACTERIZATION
WHOLE SERUM	Whole serum delipidized (most are solid phase adsorbed)	rabbit 12-15 goat 20-25 sheep 15-20	rabbit 1-3 goat 1-4 sheep 1-4 Total Protein: rabbit: 40-60 gt/shp: 60-80	0.1% sodium azide or/+ 0.1% thimerosal	4°C or -20° C for prolonged storage. Do not repeat freeze/thaw.	Immunodiffusion; immunoelectrophoresis; related agarose techniques immunoprecipitation blots
IgG FRACTION	Prepared by DEAE ion exchange chromatography or octanoic acid fractionation	5-10 mg/ml all species	rabbit 1-3 goat/sheep 1-4	as above	as above	
NEPHELOMETRIC GRADE	Whole serum with lipoproteins & other labile serum components removed	~15-20 mg/ml	rabbit 1-3 goat 1-4 sheep 1-4	0.1% sodium azide	as above	Nephelometric and turbidometric techniques
CYTOLOGY GRADE	IgG fractions of whole serum prepared by DEAE ion exchange chrom. in 0.015M PBS pH 7.2	~15-20 mg/ml	rabbit 1-3 goat 1-4 sheep 1-4	0.1% sodium azide or/+ 0.1% thimerosal	as above	Indirect immunoassay against frozen &/or paraffin sections; may also be suitable for ELISA
FLUOROCHROME CONJUGATES (FITC)	Conjugates are prepared from IgG fractions: free fluorochrome removed by column chromatography -in PBS pH 7.2	~10-15 mg/ml	~1-2 mg/ml all species	as above	as above	Direct/indirect immunofluorescent microscopy; typical titer 1:16 to 1:32; some conjugates checked by FACS; lot specific data supplied
PEROXIDASE CONJUGATES (HRP)	Prepared from IgG fractions conjugated with labeling grade HRP in PBS pH 7.2	~5-10 mg/ml	~1-2 mg/ml	thimerosal or thymol with BSA +/- glycerol	as above	Immunocytochemical staining; ELISA (typical titer 1:500-1:2000; lot specific data accompanies each product) blots
ALKALINE PHOSPHATASE CONJUGATES (AP)	Prepared from IgG fractions conjugated with high activity calf intestine AP in Tris/HCl pH 8.0	1.0-1.5 mg/ml	0.2-0.3 mg/ml	0.1% sodium azide + 1% BSA +/- glycerol	4°C	as above; ELISA-25µg Ab per well for 100 ng final; blots, dilution-1:50-1:200
AFFINITY PURIFIED ANTIBODIES AND CONJUGATES (AFFIN)	IgG fractions further purified by affinity chromatography techniques. Affinity purified products are indicated by Affin.	variable	Consult Chemical Credential accompanying product for lot specific information.			
MONOCLONAL ANTIBODIES (ASCITES)	Most supplied as undiluted ascites fluid (delipidized) or tissue culture supernatant. Others supplied as purified immunoglobulin in buffer with micrograms or milligrams purified immunoglobulin stated.	~2-5 mg/ml (ascites only) Total Protein: 9-10 mg/ml	~1-3 mg/ml (ascites only) Culture supernatant Approx.: 30µg/ml	0.1% sodium azide	Specific for product: information accompanies each vial	Specific for product; may be ELISA, Immunofluorescence immunoperoxidase, or immunoblot; or RIA
PHYCOERYTHRIN CONJUGATES (PE)	Prepared from affinity purified antibodies conjugated with B-PE or R-PE in PBS pH 7.6		0.5mg/ml	0.01% thimerosal + 1.5% BSA	4°C lyophilized Do not freeze	Flow cytometer Double labeling Dilution -1:50-1:200

Shelf Life and Storage

Each product is accompanied by a chemical credential stating proper storage. The following information is provided as a general guideline only.

Liquid Antisera (Whole Antisera or IgG Fractions)

Undiluted: Liquid stable for at least 2 years at -20°C. Thawed material okay 1-2 months at 4°C. Aliquot into small enough vials to yield practical working quantities. Store aliquots at -20°C.

Diluted: Low dilutions (1:4, 1:8, etc.) should be as stable as undiluted when stored as above.

Lyophilized Antisera (Whole Antiserum or IgG Fractions)

Stable at 4°C for at least 3 years. When reconstituted, follow directions for liquid antisera.

Antisera and IgG fractions are shipped ambient.

RIA Antisera (Prediluted)

Good frozen at -20°C for at least 6 months when reconstituted in aliquots according to procedural insert. Antisera diluted to working strength must be used within 12 hours. Unreconstituted liquid stable at 4°C for 3 years. Shipped ambient.

Monoclonal Antibodies

Storage varies (4°C, -20°C, -70°C) and shipping varies (ambient, cold pack, dry ice). Inquire for individual product.

RID Kits

Stable for about 1 year at 4°C. Do not freeze. Shipped ambient. (May be shipped differently during weather extremes).

Blood Proteins (Lyophilized)

Stable for at least 3 years at 4°C or -20°C. Shipped ambient.

Enzymes

Varies with product for both shipping and storage.

AMCA Conjugates

Store lyophilized at 4°C. After reconstitution, aliquot and freeze undiluted. Stable at -20°C for about 1 year. Working solution stable only for 1 day. Shipped ambient.

AP Conjugates

Store in dark at 4°C. **Do Not Freeze!** Addition of glycerol (50:50) can extend shelf life and allow storage at 4°C. Stable about 6 months. Aliquot into small quantities and avoid repeated exposure to air. It is not recommended to store working dilutions. Shipped under conditions best for the stability of the product: ambient or cold pack.

Biotin Conjugates

Store lyophilized at 4°C. After reconstitution, aliquot and freeze undiluted. Stable at -20°C about 1 year. Working dilution only stable for 1 day. Shipped ambient.

FITC Conjugates

Store at 4°C. Stock liquid and reconstituted lyophilized products should be aliquoted and stored at -20°C. Stable for about 1 year. Protect from light by storing in brown glass vials or cover with aluminum foil. Working dilutions under continuous use, stable for 1 week at 4°C with 0.1% sodium azide. Shipped ambient.

Peroxidase Conjugates

Store at 4°C. Stock liquid and reconstituted lyophilized products should be aliquoted and stored at 4°C or -20°C for 9 to 12 months. (See individual product information.) Less stable than most conjugates. Working dilutions can usually be stored at 4°C for 1 week, but may require recalibration. Shipped under conditions best for the stability of the product: ambient, cold pack, or dry ice.

Phycoerythrin Conjugates

Store at 4°C. **Do Not Freeze!** After reconstitution stable for about 6 months. Shipped ambient. We are NOT responsible for the stability of the working dilutions of all conjugates.

Nomenclature and Abbreviations

We have adopted several forms and abbreviations. Assume all antisera to immunoglobulins are heavy chain specific unless specified to have (H+L) heavy and light chain activity.

The following are abbreviations commonly appearing on these pages:

Ab - Antibody	MAb - Monoclonal Antibody
Ag - Antigen	Neph - Nephelometric Grade
Affin. - Affinity Purified Antibody	n.u. - Neutralizing unit
Aggl. - Agglutinating	ODD - Ouchterlony Double Diffusion
AMCA - 7-Amino-4 methylcoumarin-3-acetic acid	PAGE - Polyacrylamide Gel Electrophoresis
AP - Alkaline Phosphatase	PAP - Peroxidase-Antiperoxidase
BL - Blotting	PBS - Phosphate Buffered Saline
CE - Cytopathic Effect	PCA - Passive Cutaneous Amblahs
Conj. - Conjugate	B-PE - B-Phycoerythrin
Coom. - Coomassie Blue	R-PE - P-Phycoerythrin
Cyt. - Immunocytochemistry	Pptn - Precipitin
Cyto. - Cytology Grade	RIA - Radioimmunoassay
EIA - Enzyme Immunoassay	RID - Radial Immunodiffusion
ELISA - Enzyme labeled Immunosorbent assay	SDS - Sodium Dodecyl Sulfate
EP - Electrophoresis	Soln - Solution
EM - Electron Microscopy	Tiss - Tissue
Fab - Fab fragment specific	WB - Western blot
F(ab')₂ - F(ab') ₂ fragment of antibody	WS - Whole Serum
Fc - Fc fragment specific	
Fd - Portion of H Chain in the Fab fragment	SPECIES ABBREVIATIONS:
Ferr. - Ferritin	Bv - Bovine
FITC - Fluorescein Isothiocyanate	Ck - Chicken
H+L - Heavy and Light Chain specific	Dk - Donkey
HEM - Hemagglutination	Eq - Equine
Hist. - Immunohistology Grade	Gt - Goat
HRP - Horseradish Peroxidase	Gp - Guinea Pig
IEP - Immunoelectrophoresis	Hu - Human
IF - Immunofluorescence	Mk - Monkey
IgG Frac. - IgG Fraction of Antiserum	Mo - Mouse
IU - International Units	Pc - Porcine
LM - Light Microscopy	Rb - Rabbit
Lq - Liquid	Rt - Rat
Ly - Lyophilized	Sh - Sheep
	Sw - Swine

Introduction

Custom Services

- Bulk Cappel Immunochemicals
- Custom Polyclonal Antibody Production
- Other Custom Services

For over 50 years the Cappel name has represented quality in immunoreagents. This reputation for quality has been achieved through adherence to a strategy of strict control of processes from antigen preparation to animal programs and finished products. We ensure the continued quality of our products through operation of our animal facility under USDA guidelines by certified animal technicians and of our manufacturing facility under GMP guided procedures.

We understand immunochemicals and OEM requirements.

Bulk Cappel Immunochemicals

We can provide bulk quantities of our standard grade antisera, IgG fractions, F(ab')₂ fragments, affinity purified antibodies, affinity purified F(ab')₂ fragments and monoclonal antibodies. ICN-Cappel antibody products are suited for use in a variety of immunochemical techniques (see Unconjugated Antibodies chapter, Uses section).

Most conjugates can be produced in bulk for use in further manufacturing.

Purified conjugates can be produced in bulk for use in further manufacturing.

Purified immunoglobulins and other serum proteins are available from a variety of species. Human source materials have been found negative for infectious agents when tested by current FDA required tests.

Custom Polyclonal Antibody Production

Antisera can be supplied by our animal facility to meet your special requirements. ICN-Cappel offers standard immunization programs for goats, sheep, rabbits and other laboratory animals. Generally, the customer supplies the antigen; in some cases, our experienced staff prepares the antigen. Antisera can be manufactured to the same grades as bulk polyclonal antisera.

Standard Programs are:

- Phase I (Initial Program)**
Includes animal costs (two rabbits or one goat/sheep), care, feeding, veterinarian fees, injections, and bleedings for three months. Base fee for Phase I includes 5 ml pre-immune bleeds and 2 ml samples of bleeds. Remainders of bleeds may be purchased.
- Phase II (Continuing Program)**
Animal care, feeding, veterinarian fees, injections, and bleedings for additional month. Base fee for Phase II includes 2 ml samples of bleeds. Remainders of bleeds may be purchased.
- Maintenance (Holding Program)**
Animal care, feeding, and veterinarian fees for additional month.

We can test bleed samples in-house using any standard ICN-Cappel assay. We can process bleed remainders by standard purification, fragmentation or conjugation procedures.

Other Custom Services

ICN-Cappel can provide a variety of custom services including antiserum fractionations, affinity preparation of antibody fragments, purifications of antibodies and custom conjugations.

For additional information and pricing information contact:

Telephone (U.S. And Canada) 1-800-854-0530
 Telephone (International) 1-714-545-0100
 Fax 1-800-334-6999
 Fax (International) 1-714-557-4872

Ask to speak with ICN-Cappel Custom Experts.