

NEW Lab Essential starter program

Protein Electrophoresis, Transfer, and Blotting Essentials from Merck

Merck is pleased to offer an extensive selection of reagents to enable uncomplicated, reliable protein electrophoresis, transfer, and immunoblotting. We provide molecular weight markers, life science industry-leading Millipore® blotting supplies including Immobilon® membranes, gel reagents and TruPage® precast gels, stains and dyes, substrates, buffers, and more.

For a complete overview of our protein electrophoresis products and TruPAGE Precast Gels visit:

Protein Markers: [SigmaAldrich.com/proteinmarkers](https://www.sigmaaldrich.com/proteinmarkers)

Precast Gels: [SigmaAldrich.com/trupage](https://www.sigmaaldrich.com/trupage)

Protein Gel Stains: [SigmaAldrich.com/protein-gel-stains](https://www.sigmaaldrich.com/protein-gel-stains)

Membranes & Blotting Paper: [SigmaAldrich.com/membranes-blotting-paper](https://www.sigmaaldrich.com/membranes-blotting-paper)

Sample Prep and Quantitation

Cat. No.	Product Description	Check
Lysis & Extraction Kits		
70584	BugBuster® Protein Extraction Reagent (for bacterial lysis)	<input type="checkbox"/>
70750	BugBuster® Plus Benzonase® Nuclease (nucleic acid degradation for more efficient lysis and less viscous lysate)	<input type="checkbox"/>
71456	BugBuster® Master Mix	<input type="checkbox"/>
71186	YeastBuster™ Protein Extraction Reagent (for yeast cell lysis)	<input type="checkbox"/>
71009	CytoBuster™ Protein Extraction Reagent (for mammalian cell lysis)	<input type="checkbox"/>
539790	ProteoExtract® Subcellular Proteome Extraction Kit	<input type="checkbox"/>
539779	ProteoExtract® Complete Mammalian Proteome Extraction Kit	<input type="checkbox"/>
444810	ProteoExtract® Native Membrane Protein Extraction Kit	<input type="checkbox"/>
71772	ProteoExtract® Transmembrane Protein Extraction Kit	<input type="checkbox"/>
PNS1010	Stabilyser™ Reagent for stabilization of DNA, RNA and protein in tissue extracts	<input type="checkbox"/>
R0278	RIPA Buffer	<input type="checkbox"/>
Protease Inhibitors		
539134-1SET	Calbiochem® Protease Inhibitor Cocktail Set III, EDTA-Free	<input type="checkbox"/>
516481	Pepstatin A, 100 mg	<input type="checkbox"/>
E16	Chymostatin, 100 mg	<input type="checkbox"/>
E18	Leupeptin, 100 mg	<input type="checkbox"/>
COEDTAF-RO	EDTA-Free, Roche cOmplete™	<input type="checkbox"/>
11836170001	Mini, EDTA-Free Roche cOmplete™	<input type="checkbox"/>
11836153001	Mini Roche cOmplete™	<input type="checkbox"/>
P2714	Protease Inhibitor Cocktail, for general use, lyophilized powder	<input type="checkbox"/>
S8830	SIGMAFAST™ Protease Inhibitor Cocktail Tablets, EDTA-Free, for use in purification of Histidine-tagged proteins	<input type="checkbox"/>

Cat. No.	Product Description	Check
Protease Inhibitors		
S8820	SIGMAFAST™ Protease Inhibitor Tablets, For General Use	<input type="checkbox"/>
CO-RO	Standard Roche cOmplete™	<input type="checkbox"/>
COUL-RO	ULTRA-Roche cOmplete™	<input type="checkbox"/>
COUEDTAF-RO	ULTRA, EDTA-Free Roche cOmplete™	<input type="checkbox"/>
4906845001	PhosSTOP™	<input type="checkbox"/>
Affinity Purification		
LSKMAGA10	PureProteome™ Protein A Magnetic Beads, 10 mL	<input type="checkbox"/>
LSKMAGG10	PureProteome™ Protein G Magnetic Beads, 10 mL	<input type="checkbox"/>
LSKMAGAG10	PureProteome™ Protein A/G Mix Magnetic Beads, 10 mL	<input type="checkbox"/>
16-156	Protein A Agarose, fast flow, 10 mL	<input type="checkbox"/>
16-266	Protein G Agarose, fast flow, 10 mL	<input type="checkbox"/>
IP10-10ML	Protein A/G Mix, 10 mL	<input type="checkbox"/>
Buffer exchange and concentration		
UFC501024	Amicon® Ultra - 0.5 mL Filters, 24/pk	<input type="checkbox"/>
UFC201024	Amicon® Ultra - 2 mL Filters, 24/pk	<input type="checkbox"/>
UFC801024	Amicon® Ultra - 4 mL Filters, 24/pk	<input type="checkbox"/>
UFC901024	Amicon® Ultra - 15 mL Filters, 24/pk	<input type="checkbox"/>
71712-3	D-Tube™ Mini (10 to 250 µL), 96-well, 7,000 NMWCO	<input type="checkbox"/>
71507-3	D-Tube™ Midi (50 to 800 µL), 10/pk, 7,000 NMWCO	<input type="checkbox"/>
71509-3	D-Tube™ Maxi (100 µL to 3 mL), 10/pk, 7,000 NMWCO	<input type="checkbox"/>
71740-3	D-Tube™ Mega (3 to 10 mL), 10/pk, 7,000 NMWCO	<input type="checkbox"/>
71743-4	D-Tube™ Mega (10 to 15 mL), 10/pk, 7,000 NMWCO	<input type="checkbox"/>
71746-3	D-Tube™ Mega (15 to 20 mL), 10/pk, 7,000 NMWCO	<input type="checkbox"/>

Electrophoresis

Cat. No.	Product Description	Check
Acrylamides and Cross-linkers		
A3553	Acrylamide, for electrophoresis, ≥99% (HPLC), powder	<input type="checkbox"/>
A8887	Acrylamide, suitable for electrophoresis, ≥99%	<input type="checkbox"/>
A4058	Acrylamide solution, 40%, for electrophoresis, sterile-filtered	<input type="checkbox"/>
A3574	Acrylamide/Bis-acrylamide, 30% solution, BioReagent, suitable for electrophoresis, 29:1	<input type="checkbox"/>
A3699	Acrylamide/Bis-acrylamide, 30% solution, BioReagent, suitable for electrophoresis, 37.5:1	<input type="checkbox"/>
A9926	Acrylamide/bis-acrylamide, 40% solution, BioReagent, suitable for electrophoresis, 19:1	<input type="checkbox"/>
A7802	Acrylamide/bis-acrylamide, 40% solution, BioReagent, suitable for electrophoresis, 29:1	<input type="checkbox"/>
A7168	Acrylamide/bis-acrylamide, 40% solution, BioReagent, suitable for electrophoresis, 37.5:1	<input type="checkbox"/>
A4929	N,N'-Bis(acryloyl)cystamine, BioReagent, suitable for electrophoresis	<input type="checkbox"/>
M7279	N,N'-Methylenebisacrylamide, powder, for molecular biology, for electrophoresis, ≥99.5%	<input type="checkbox"/>
M1533	N,N'-Methylenebisacrylamide solution, for electrophoresis, 2% in H ₂ O	<input type="checkbox"/>
Electrophoresis and Transfer Buffers and Reagents		
B8660	BICINE, BioXtra, ≥99% (titration)	<input type="checkbox"/>
G8898	Glycine, for electrophoresis, ≥99%	<input type="checkbox"/>
S3401	Laemmli 2x Concentrate Sample Buffer	<input type="checkbox"/>
M1317	MES solution, BioPerformance Certified, 1 M, suitable for cell culture	<input type="checkbox"/>
P3532	Phenol Red, powder, BioReagent, suitable for cell culture	<input type="checkbox"/>
243973	Sodium bisulfite, ACS reagent, mixture of NaHSO ₃ and Na ₂ S ₂ O ₅	<input type="checkbox"/>
T8657	Trichloroacetic acid, for electrophoresis, suitable for fixing solution (for IEF and PAGE gels), ≥99%	<input type="checkbox"/>
T5816	Tricine, BioPerformance Certified, cell culture tested, ≥99% (titration)	<input type="checkbox"/>
90279	Triethanolamine, ≥99.0% (GC)	<input type="checkbox"/>
T4904	Tris-Glycine Buffer, 10x Concentrate	<input type="checkbox"/>
T7777	Tris-Glycine-SDS Buffer, 10x Concentrate	<input type="checkbox"/>

Cat. No.	Product Description	Check
Electrophoresis and Transfer Buffers and Reagents		
T1165	Tris-Tricine-SDS Buffer, 10x Concentrate	<input type="checkbox"/>
T2319	Trizma® hydrochloride solution, BioPerformance Certified, pH 7.5, 1 M, suitable for cell culture	<input type="checkbox"/>
RDD008	Trizma® base, anhydrous, free-flowing, Redi-Dri™, ≥99.9%	<input type="checkbox"/>
17236	3-(Benzyltrimethylammonio)propanesulfonate, BioXtra, ≥99.0% (HPCE)	<input type="checkbox"/>
56741	IGEPAL® CA-630, CMC 0.083 mM	<input type="checkbox"/>
O3757	Octyl β-D-glucopyranoside solution, ≥98% (HPLC), 50 % (w/v) in H ₂ O	<input type="checkbox"/>
L9781	Lithium dodecyl sulfate, BioReagent, for molecular biology, suitable for electrophoresis	<input type="checkbox"/>
L3771	Sodium dodecyl sulfate, BioReagent, suitable for electrophoresis, for molecular biology, ≥98.5% (GC)	<input type="checkbox"/>
C6070	CAPS, BioXtra, pH 3.0-7.0 (20 C, 0.5 M in H ₂ O), ≥98.0% NaOH basis (titration)	<input type="checkbox"/>
179957	Methanol, Laboratory Reagent, ≥99.6%	<input type="checkbox"/>
Gel Casting Reagents		
A3678	Ammonium persulfate (APS), for molecular biology, for electrophoresis, ≥98%	<input type="checkbox"/>
T9281	N,N,N',N'-Tetramethylethylenediamine (TEMED), BioReagent, suitable for electrophoresis, ~99%	<input type="checkbox"/>
8091	SDS Gel Preparation Kit	<input type="checkbox"/>
Reducing Agents		
63689	2-Mercaptoethanol (BME)	<input type="checkbox"/>
43816	DL-Dithiothreitol (DTT), BioUltra, for molecular biology, 1 M in H ₂ O	<input type="checkbox"/>
S3147	5-Sulfosalicylic acid dihydrate, for electrophoresis, ≥99%	<input type="checkbox"/>
68957	Tris(2-carboxyethyl)phosphine hydrochloride, BioUltra, for electrophoresis, SDS-PAGE tested	<input type="checkbox"/>

Transfer

Cat. No.	Product Description	Check
Blotting Papers		
IBFP0785C	Immobilon® Blotting Filter Paper, 7 x 8.4 cm sheet	<input type="checkbox"/>
IBFP0813C	Immobilon® Blotting Filter Paper, 8.5 x 13.5 cm sheet	<input type="checkbox"/>
GERPN6101M	Hybond blotting paper, L x W 20 cm x 20 cm, sheets, pack of 100 ea	<input type="checkbox"/>
WHA10427812	Whatman® gel blotting paper, Grade GB003, GB003 blotting sheets, 15 x 20 cm, 100/pk	<input type="checkbox"/>
WHA10499001	Whatman® membrane marking pen	<input type="checkbox"/>
Immobilon®-E PVDF Transfer Membrane, 0.45 μm		
IEVH00005	26.5 cm x 1.875 m 1 roll	<input type="checkbox"/>
Immobilon® NOW PVDF Transfer Membranes (Each 8.5 cm x 10 m roll provides about 144 mini blots)		
IEVH85R	Immobilon®-E membrane, 8.5 cm x 10 m roll	<input type="checkbox"/>
IPVH85R	Immobilon®-P membrane, 8.5 cm x 10 m roll	<input type="checkbox"/>
IPFL85R	Immobilon®-FL membrane, 8.5 cm x 10 m roll	<input type="checkbox"/>
ISEQ85R	Immobilon®-P ^{5Q} membrane, 8.5 cm x 10 m roll	<input type="checkbox"/>
IMDISP	Immobilon® NOW Dispenser	<input type="checkbox"/>
Immobilon®-P PVDF Transfer Membrane, 0.45 μm		
IPVH00010	26.5 cm x 3.75 m 1 roll	<input type="checkbox"/>
IPVH00005	26.5 cm x 1.875 m 1 roll	<input type="checkbox"/>
Immobilon®-P^{5Q} PVDF Transfer Membrane, 0.2 μm		
ISEQ00010	26.5 cm x 3.75 m 1 roll	<input type="checkbox"/>
ISEQ00005	26.5 cm x 1.875 m 1 roll	<input type="checkbox"/>
Immobilon®-FL Membrane, 0.45 μm		
IPFL00010	26.5 cm x 3.75 m 1 roll	<input type="checkbox"/>
IPFL00005	26.5 cm x 1.875 m 1 roll	<input type="checkbox"/>

Blocking & Antibody Addition

Cat. No.	Product Description	Check
SNAP i.d.® 2.0 systems		
SNAP2MINI	SNAP i.d.® 2.0 System - Mini (7.5 x 8.4 cm)	<input type="checkbox"/>
SNAP2MIDI	SNAP i.d.® 2.0 System - Midi (8.5 x 13.5 cm)	<input type="checkbox"/>
SNAP2MB3	SNAP i.d.® 2.0 System - MultiBlot (4.5 x 8.4 cm)	<input type="checkbox"/>
SNAP2MM	SNAP i.d.® 2.0 System - Mini and Midi (7.5 x 8.4 cm and 8.5 x 13.5 cm)	<input type="checkbox"/>
SNAP2MB1	SNAP i.d.® 2.0 System - Mini and MultiBlot (7.5 x 8.4 cm and 4.5 x 8.4 cm)	<input type="checkbox"/>
SNAP2MB2	SNAP i.d.® 2.0 System - Midi and MultiBlot (8.5 x 13.5 cm and 4.5 x 8.4 cm)	<input type="checkbox"/>
SNAP i.d.® 2.0 consumables		
SNAP2BHMN0100	SNAP i.d.® 2.0 Mini Blot Holders (7.5 x 8.4 cm) 100/pk	<input type="checkbox"/>
SNAP2BHMD0100	SNAP i.d.® 2.0 Midi Blot Holders (8.5 x 13.5 cm) 100/pk	<input type="checkbox"/>
SNAP2BHMB050	SNAP i.d.® 2.0 MultiBlot Holders (4.5 x 8.4 cm) 50/pk	<input type="checkbox"/>
SNAP i.d.® 2.0 accessories		
SNAPABTR	SNAP i.d.® 2.0 Antibody Collection Tray 20/pk	<input type="checkbox"/>
SNAP2RL	SNAP i.d.® 2.0 Blot Roller 1/pk	<input type="checkbox"/>
SNAP2FRMN02	SNAP i.d.® 2.0 Mini Blot Holding Frames (double pack) 2/pk	<input type="checkbox"/>
SNAP2FRMD02	SNAP i.d.® 2.0 Midi Blot Holding Frames (double pack) 2/pk	<input type="checkbox"/>
SNAP2FRMN01	SNAP i.d.® 2.0 Mini Blot Holding Frame (single pack) 1/pk	<input type="checkbox"/>
SNAP2FRMD01	SNAP i.d.® 2.0 Midi Blot Holding Frame (single pack) 1/pk	<input type="checkbox"/>
SNAP2FRMB01	SNAP i.d.® 2.0 MultiBlot Frame (single pack) 1/pk	<input type="checkbox"/>
Signal enhancer reagents		
WBSH0500	Immobilon® Signal Enhancer for Immunodetection	<input type="checkbox"/>
Blocking buffers and reagents		
WBAVDCH01	Immobilon® Block-CH for HRP chemiluminescent applications	<input type="checkbox"/>
WBAVDFL01	Immobilon® Block-FL for fluorescent applications	<input type="checkbox"/>
WBAVDP001	Immobilon® Block-PO for use with phosphospecific antibodies	<input type="checkbox"/>
W0138	Western Blocker™ Solution, for HRP detection systems	<input type="checkbox"/>
A7030	Bovine Serum Albumin, heat shock fraction, protease free, fatty acid free, essentially globulin free, pH 7, ≥98%	<input type="checkbox"/>
A7906	Bovine Serum Albumin, heat shock fraction, pH 7, ≥98%	<input type="checkbox"/>
G7663	Gelatin blocking buffer, powder blend	<input type="checkbox"/>
P5493	Phosphate buffered saline, 10x concentrate, BioPerformance Certified, suitable for cell culture	<input type="checkbox"/>
P2194	Phosphate buffered saline, dry powder, pH 7.4, contains 3% nonfat milk	<input type="checkbox"/>
P3688	Phosphate buffered saline, pH 7.4, contains BSA, powder	<input type="checkbox"/>
P3813	Phosphate buffered saline, powder, pH 7.4	<input type="checkbox"/>
T6789	Tris Buffered Saline, with BSA, pH 8.0, powder	<input type="checkbox"/>
Wash buffers		
08057	Phosphate buffered saline, BioUltra, pH 7.4 (in solution), contains TWEEN 20, tablets	<input type="checkbox"/>
P3563	Phosphate buffered saline, pH 7.4, contains TWEEN® 20, dry powder	<input type="checkbox"/>
T6664	Tris Buffered Saline, pH 8.0, powder	<input type="checkbox"/>
91414	Tris buffered saline with TWEEN® 20, BioUltra, tablets (for 500 mL), pH 7.6	<input type="checkbox"/>
T9039	Tris Buffered Saline, with TWEEN® 20, pH 8.0, powder	<input type="checkbox"/>
Peroxidase conjugates		
A3682	Anti-Mouse IgG (Fab specific)-Peroxidase antibody produced in goat, affinity isolated antibody buffered aqueous solution	<input type="checkbox"/>
A9917	Anti-Mouse IgG (Fab specific)-Peroxidase antibody produced in goat, affinity isolated antibody buffered aqueous solution	<input type="checkbox"/>
A0168	Anti-Mouse IgG (Fc specific)-Peroxidase antibody produced in goat, affinity isolated antibody	<input type="checkbox"/>
A2554	Anti-Mouse IgG (Fc specific)-Peroxidase antibody produced in goat, affinity isolated antibody buffered aqueous solution	<input type="checkbox"/>
A9044	Anti-Mouse IgG (whole molecule)-Peroxidase antibody produced in rabbit, IgG fraction of antiserum buffered aqueous solution	<input type="checkbox"/>
A0545	Anti-Rabbit IgG (whole molecule)-Peroxidase antibody produced in goat, affinity isolated antibody	<input type="checkbox"/>
A3151	Avidin-Peroxidase, lyophilized powder	<input type="checkbox"/>
A5420	Anti-Goat IgG (whole molecule)-Peroxidase antibody produced in rabbit, affinity isolated antibody, buffered aqueous solution	<input type="checkbox"/>
A4416	Anti-Mouse IgG (whole molecule)-Peroxidase antibody produced in goat, affinity isolated antibody buffered aqueous solution	<input type="checkbox"/>

Cat. No.	Product Description	Check
Peroxidase conjugates		
A6154	Anti-Rabbit IgG (whole molecule)-Peroxidase antibody produced in goat, affinity isolated antibody buffered aqueous solution	<input type="checkbox"/>
AP106P	Anti-Goat IgG Antibody, HRP conjugate; produced in rabbit; Purified rabbit IgG conjugated to horseradish peroxidase in buffer containing 0.01 M Sodium Phosphate, 0.15 M NaCl, pH 7.1 with 15 mg/mL BSA and 0.01% thimerosal. Lyophilized.	<input type="checkbox"/>
12-348	Anti-Rabbit IgG Antibody, HRP-conjugate; produced in rabbit; Goat polyclonal conjugated with horseradish peroxidase IgG in buffer containing 50% storage buffer 0.02 M potassium phosphate, 0.15 M NaCl, pH 7.2, 10 mg/mL BSA, 0.01% (w/v) gentamicin sulfate and 50% glycerol. Lyophilized.	<input type="checkbox"/>
12-349	Anti-Mouse IgG Antibody, HRP conjugate; produced in goat; Purified goat polyclonal IgG in buffer containing conjugated to horseradish peroxidase lyophilized from 0.02 M Potassium Phosphate, 0.15 M NaCl, pH 7.2, 10 mg/mL BSA, and 0.01% gentamicin sulfate.	<input type="checkbox"/>
AP308P	Anti-Mouse IgG Antibody, (H+L) HRP conjugate; produced in goat; Purified Goat IgG in buffer containing liquid in PBS, pH 7.1 with 15 mg/mL BSA and 0.01% thimerosal.	<input type="checkbox"/>
MAB201P	Anti-Rabbit light chain, HRP conjugate Antibody; produced in mouse; Purified from antiserum by chromatographic procedures. Lyophilized in 0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6. 15 mg/mL BSA as stabilizer.	<input type="checkbox"/>
AP200P	Anti-Mouse light chain Antibody, HRP conjugate; produced in goat; Lyophilized in 0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6. 15 mg/mL BSA as stabilizer. Purified by immunoaffinity chromatography.	<input type="checkbox"/>

Blot Stripping Reagents

Cat. No.	Product Description	Check
2502	ReBlot™ Plus Mild Antibody Stripping Solution, 10 x 50 mL	<input type="checkbox"/>
2504	ReBlot™ Plus Strong Antibody Stripping Solution, 10 x 50 mL	<input type="checkbox"/>
2520-M	Blot Restore Membrane Rejuvenation Kit, 10x	<input type="checkbox"/>

Detection

Cat. No.	Product Description	Check
Immobilon® Western Chemiluminescent HRP Substrate		
WBKLS0050	2 x 25 mL	<input type="checkbox"/>
WBKLS0100	2 x 50 mL	<input type="checkbox"/>
WBKLS0500	2 x 250 mL	<input type="checkbox"/>
Immobilon® ECL Ultra Western HRP Substrate		
WBULS0020	2 x 10 mL	<input type="checkbox"/>
WBULS0100	2 x 50 mL	<input type="checkbox"/>
WBULS0500	2 x 250 mL	<input type="checkbox"/>
Immobilon® Classico Western HRP Substrate		
WBLUC0020	20 mL	<input type="checkbox"/>
WBLUC0100	100 mL	<input type="checkbox"/>
WBLUC0500	500 mL	<input type="checkbox"/>
Immobilon® Crescendo Western HRP Substrate		
WBLUR0020	20 mL	<input type="checkbox"/>
WBLUR0100	100 mL	<input type="checkbox"/>
WBLUR0500	500 mL	<input type="checkbox"/>
Immobilon® Forte Western HRP Substrate		
WBLUF0020	20 mL	<input type="checkbox"/>
WBLUF0100	100 mL	<input type="checkbox"/>
WBLUF0500	500 mL	<input type="checkbox"/>

