

o o o o o o o o o o **Inspiring** Innovation o o o o o o o o o o

Protein

Electrophoresis

 **fisher scientific**
part of Thermo Fisher Scientific

Protein Electrophoresis

Separate proteins for downstream detection or analysis with reliable, high-quality products from the Fisher Scientific channel.

- Gels
- Gel tanks
- Protein gel casting systems
- Stains
- Molecular weight markers and standards
- Running buffers
- Blotting products

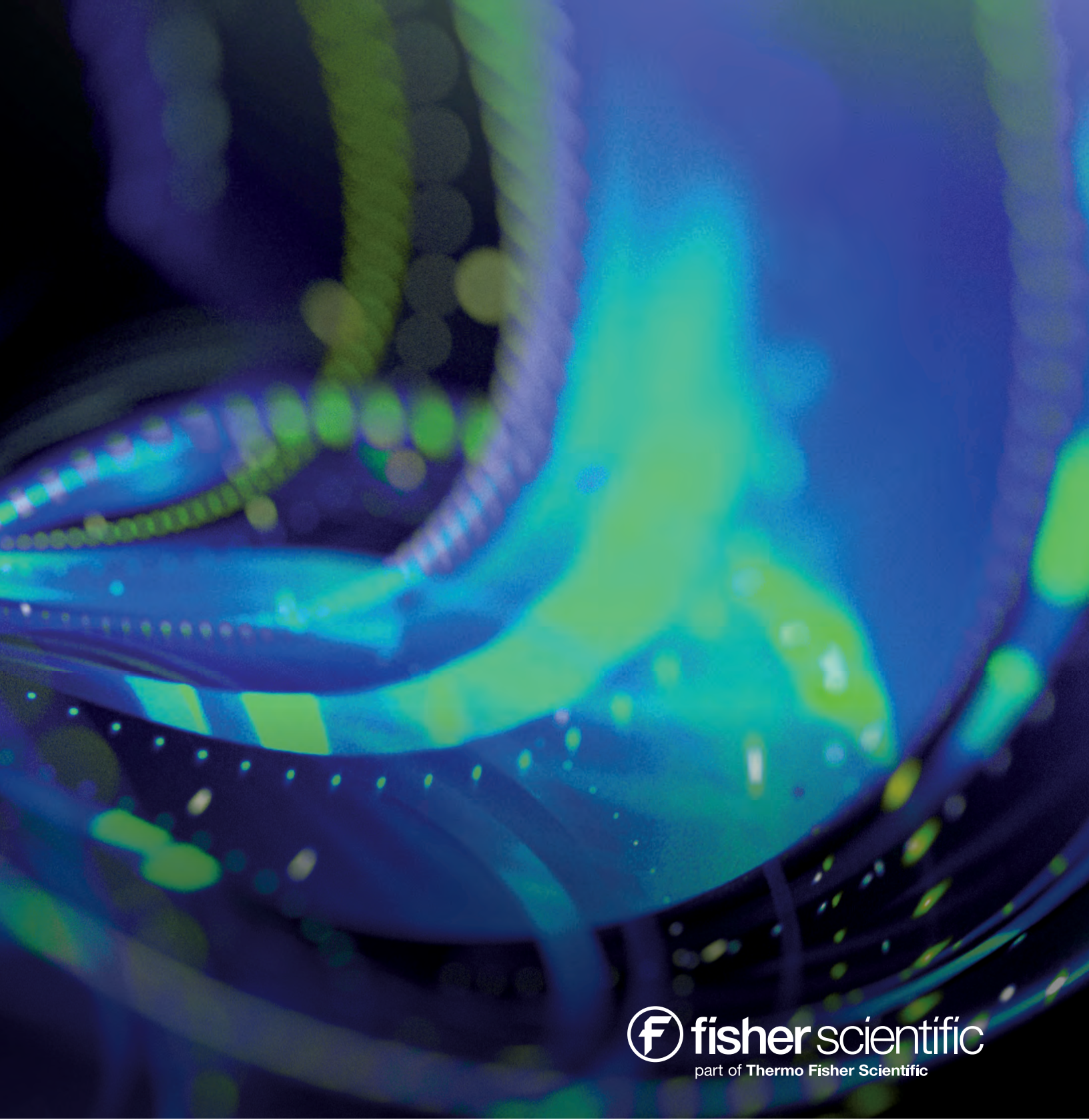
thermoscientific **invitrogen** *fisherbrand*

Supplier and Other Trademarks:

Coomassie, Expedeon, InstantBlue, Lonza, SYPRO

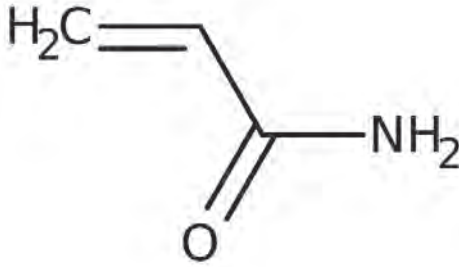
Trademarks of Thermo Fisher Scientific:

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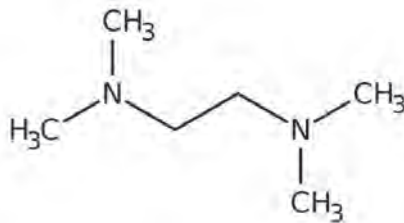
Reagents



Fisher Bioreagents Bis-Acrylamide Solution

Premixed 40% solutions for crosslinking acrylamide in gels for DNA sequencing and low-molecular-weight protein separations. Choose formulations for 2.6% or 5% crosslinking.

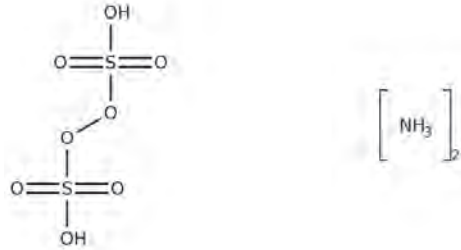
Cat. Nos.: BP1406-1, BP1410-1



Fisher Bioreagents TEMED (Tetramethylethylenediamine)

Essential catalyst used with APS to polymerize acrylamide in polyacrylamide gels for electrophoresis.

Cat. No.: BP150-20



Fisher Bioreagents Ammonium Persulfate (APS)

Catalyst used with TEMED to polymerize acrylamide in polyacrylamide gels for electrophoresis.

Cat. No.: BP179-25

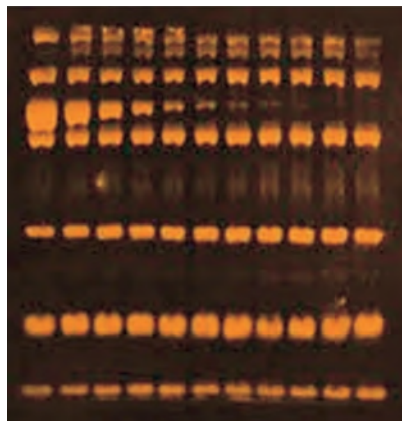


Fisher Bioreagents FASTRun Tris SDS PAGE Running Buffer, 10X

Reduces PAGE gel running times by more than 70% while providing comparable or better resolution than traditional buffers. Available in 500mL or 1L sizes.

Cat. Nos.: BP881-500, BP881-1

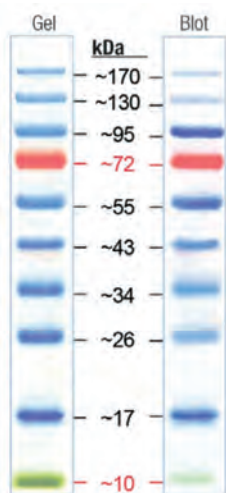
Stains



Lonza SYPRO Ruby Protein Blot Stain

For high-sensitivity detection on PVDF and nitrocellulose membranes. Does not interfere with subsequent immunodetection.

Cat. No.: BMA50565



Fisher Bioreagents EZ-Run Prestained *Rec* Protein Ladder

Tested to USP Sterility

Get 10 recombinant proteins plus 10 and 72kDa tagged reference bands to help monitor protein separation during SDS-PAGE, verify western blot transfer efficiency, and approximate protein molecular weights.

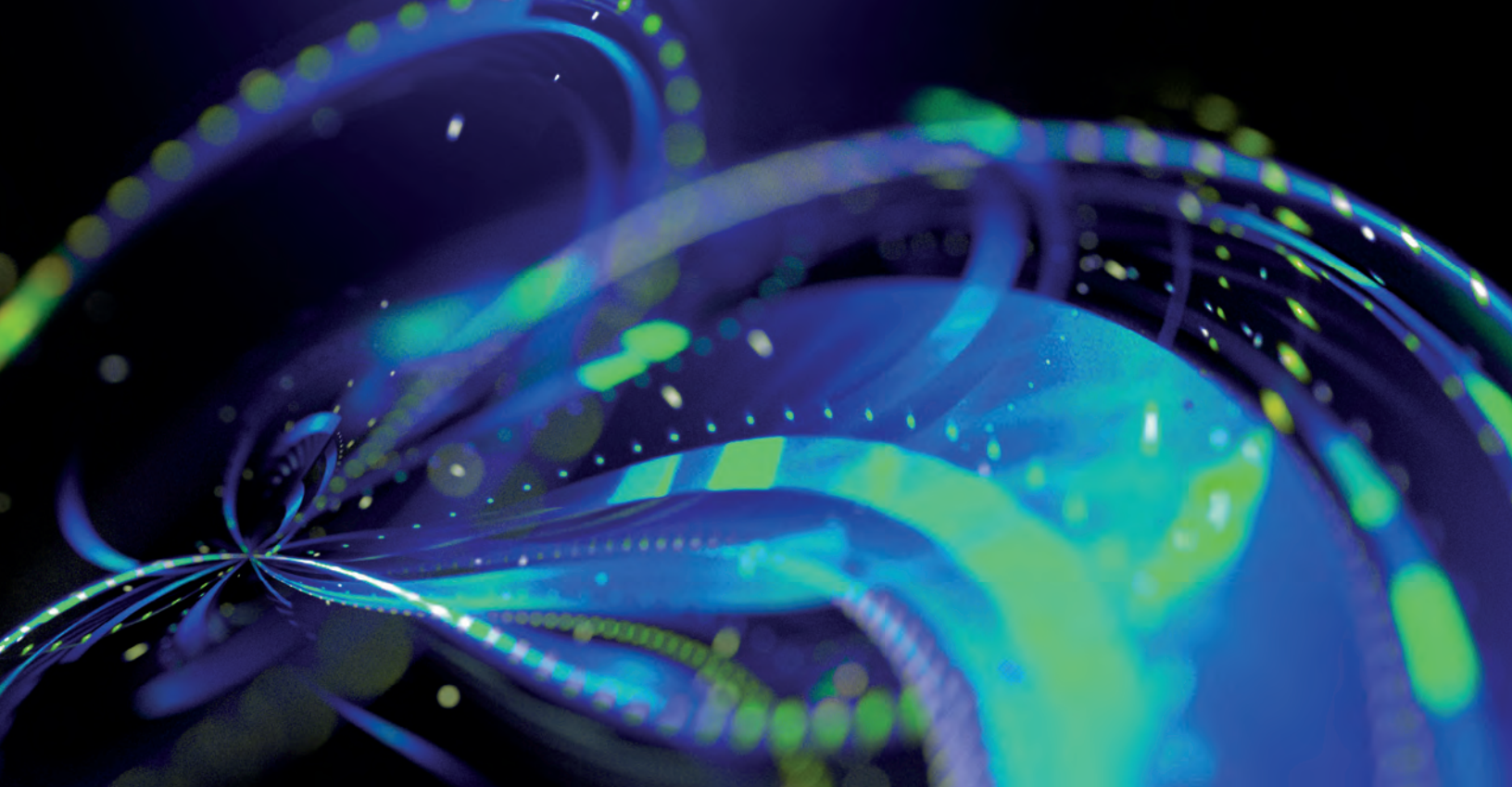
Cat. No.: BP3603500



Fisher Bioreagents EZ-Run Protein Gel Staining Solution

Ready-to-use solution containing Coomassie Brilliant Blue G-250, which stains proteins without affecting the gel matrix background color.

Cat. No.: BP36201



The Right Tools for Your Protein Electrophoresis Workflow

Separation without Anxiety

Whether it's the first or last step in your workflow, we offer a complete array of high-quality products to support rapid, reliable protein electrophoresis, optimized for multiple applications. Our precast protein gels are available in a variety of formulations designed to deliver superior performance, reliability, reproducibility, and consistent quality.

Precast Protein Gels

Unique Chemistries for Your Unique Protein

Precast gels offer convenience, speed, and consistency. Invitrogen precast gels are available in four different chemistries with a variety of percentages, gradients, and sample well configuration options.

Choose your gel chemistry based on the abundance and size of the protein and your downstream application:

- **Tris-glycine chemistry** for broad-range, high-abundance proteins
- **Tris-acetate chemistry** for high molecular weight proteins
- **Tricine chemistry** for low molecular weight proteins
- **Bis-Tris chemistry** for broad-range, low-abundance proteins or applications requiring high protein integrity, like posttranslational modification analysis, mass spectrometry, or sequencing



Visit thermofisher.com/proteingels to explore protein gel options.

Description	Protein Molecular Weight	Gel Format	Recommended For
Invitrogen NuPAGE Bis-Tris Gels	Low Abundance, Broad Molecular Weight Range	Standard	Western Blotting, Mass Spectrometry, Post Translationally Modified Proteins, Denaturing Applications
Invitrogen Bolt Bis-Tris Plus Gels	Low Abundance, Broad Molecular Weight Range	WedgeWell	Western Blotting, Mass Spectrometry, Post Translationally Modified Proteins, Dilute Samples, Denaturing Applications
Invitrogen Novex Tris-Glycine Gels	High Abundance, Broad Molecular Weight Range	Standard, WedgeWell	Western Blotting, In-Gel Staining, Samples Containing Detergent and High Salt, Denaturing, or Native PAGE Applications
Invitrogen NuPAGE Tris-Acetate Gels	High Molecular Weight	Standard	Western Blotting, Mass Spectrometry, Post Translationally Modified Proteins, Denaturing or Native PAGE Applications
Invitrogen Novex Tricine Gels	Low Molecular Weight	Standard	Western Blotting, In-Gel Staining, Denaturing Applications

Use the interactive gel selection tool at thermofisher.com/minigelselection to find the right protein gel.

Save with Protein Gel Welcome Packs

Mini Gel Tank Included with Purchase

Protein Gel Welcome Packs are available for each of our protein gels. Each welcome pack provides all the necessary gels, buffers, and reagents you need to get started as well as the mini gel tank — all with over 50% savings compared to purchasing the bundled products separately.

Visit fishersci.com/proteingelkits or fishersci.ca/proteingelkits to see the complete selection of welcome packs.



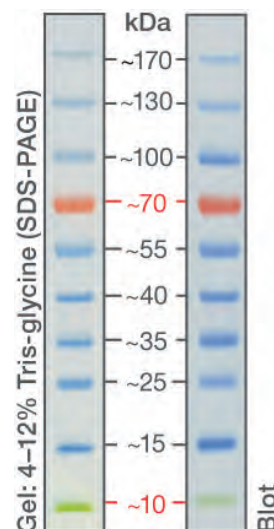
Protein Ladders and Standards

High Quality without the High Price

Our broad range of pre-stained and unstained protein ladders are supplied in a ready-to-use format that facilitates easy protein analysis during gel electrophoresis and western blotting.

- **Performance** — sharp protein bands and consistent migration patterns enable easy molecular weight determination
- **Flexibility** — a variety of molecular weight ranges; broad-range ladders for everyday gel electrophoresis, or specialized protein ladders targeting high or low molecular weight proteins
- **Convenience** — protein ladders are ready to load with no heating required
- **Reliability** — exceptional lot-to-lot consistency and reproducibility

Visit thermofisher.com/proteinladders to learn more.



Description	Quantity	Cat. No.
Thermo Scientific PageRuler Unstained Protein Ladder	2 x 250µL	PI26614
Invitrogen iBright Pre-Stained Protein Ladder	2 x 250µL	LC5615
Thermo Scientific PageRuler Pre-Stained Protein Ladder	2 x 250µL	PI26616
Thermo Scientific PageRuler Plus Pre-Stained Protein Ladder	2 x 250µL	PI26619
Invitrogen HiMark Pre-Stained Protein Standard	250µL	LC5699
Thermo Scientific Spectra Multicolor Broad Range Protein Ladder	2 x 250µL	PI26634
Thermo Scientific Spectra Multicolor High Range Protein Ladder	2 x 250µL	PI26625
Invitrogen MagicMark XP Western Protein Standard	250µL	LC5602

Gel Tanks and Gel Casting Devices

Invitrogen Mini Gel Tank

The Invitrogen Mini Gel Tank was designed for more intuitive use and convenience compared to traditional electrophoresis tanks. The unique, side-by-side tank design allows you to perform electrophoresis of one or two mini gels.

- **Versatile** — compatible with all Invitrogen precast or handcast mini gels
- **Easy sample loading** — forward-facing well configuration
- **Simultaneous visualization of both gels** — streamlined, side-by-side tank configuration
- **Less running buffer required** — two separate gel chambers; you only need to load sufficient buffer for each gel

Visit thermofisher.com/minigeltank to learn more.



Invitrogen SureCast Pour-Your-Own Gel System and Reagents

Never Repour Another Gel Due to Leaks

The Invitrogen SureCast Gel Handcasting System is a convenient, leak-free protein gel casting system fully compatible with the Invitrogen Mini Gel Tank.

- **Leak-free design** — helps minimize the frequency of failed gel castings
- **Superior glass plate durability** — up to 20 times more durable than other plates
- **Unique tilt feature** — helps minimize spillage when pouring acrylamide solutions
- **Simple assembly of casting components** — uses a single-motion, load-and-lock mechanism



Visit thermofisher.com/surecast to learn more.

Description	Quantity	Cat. No.
Mini Gel Tank	1	A25977
Mini Gel Tank and Blot Module Set	1	NW2000
SureCast Gel Handcast Bundle A (Includes SureCast Reagents)	Multiple	HC1000SR
SureCast Gel Handcast Bundle B (Hardware Only)	Multiple	HC1000S
SureCast Gel Handcast System	1	HC1000

Protein Electrophoresis Buffers, Reagents, and Stains

We offer premixed, reliable SDS-PAGE buffers and reagents including sample buffers, running buffers, reducing agents, and stains.

Buffers and Reagents

Reagents and buffers are important components of the protein electrophoresis system. Choose from a range of electrophoresis buffers and reagents for gel casting, sample preparation, running, and transferring gels.

Visit thermofisher.com/electrophoresisbuffers to learn more.

Protein Gel and Membrane Stains

Explore a variety of easy-to-use, effective protein stains for both in-gel and on-membrane detection. Our comprehensive collection of stains includes Coomassie dye-based stains, silver stains, fluorescent stains, tagged fusion protein stains, and PTM protein gel stains.

Visit thermofisher.com/proteinstains to learn more.



Flip to explore nucleic acid electrophoresis.

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Order online: fishersci.com

Fax an order: 1-800-926-1166

Call customer service: 1-800-766-7000

In Canada

Order online: fishersci.ca

Fax an order: 1-800-463-2996

Call customer service: 1-800-234-7437

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Electrophoresis Power Supplies



Fisherbrand Compact Power Supply

Ideal for SDS-PAGE, DGGE/CDGE, and DNA/RNA submarine electrophoresis. With three jacks, 75W of power, and your choice of voltage or current mode.

Cat. No.: FB300Q



Fisherbrand High-Current Power Supply

Designed for high-current electroblotting and SDS-PAGE applications. Features a nine-program memory for multi-user labs and for repetitive operations.

Cat. No.: FB3000Q

Horizontal Electrophoresis Systems



Fisherbrand Horizontal Electrophoresis Systems

Choose from four systems: Minigel (7 x 10cm gel tray), Midigel (13 x 16cm gel tray), Large (20 x 25cm gel tray), or Wide (18 x 23cm gel tray). Midigel and Large systems available with recirculating buffer formats.

Cat. Nos.: FB-SB-710, FB-SB-1316, FB-SBR-1316, FB-SB-2025, FB-SBR-2025, FB-SB-2318



Thermo Scientific Owl EasyCast B2 Mini Gel Electrophoresis Systems

Provides flexibility with simple-to-use casting method and multiple comb and tray options in a small footprint. Available with buffer exchange ports for use with external recirculation pump.

Cat. Nos.: 09-528-110B, 09-528-118



Thermo Scientific Owl A1 Large Gel System

Perform detailed RNA/DNA analysis in one of the smallest footprints of any large-format device. Includes buffer chamber with leveling base, lid with attached power supply leads, UVT gel tray, gasketed end gates, and three combs.

Cat. No.: 09-528-100

DNA Stains



Invitrogen SYBR Green I Nucleic Acid Gel Stain

Extremely sensitive stain for fluorescent detection of double-stranded DNA in agarose and polyacrylamide gels. Concentrated (10,000X) in DMSO.

Cat. No.: S7563



Promega Molecular Grade Ethidium Bromide Solution

Fluorescent dye for nucleic acids following electrophoresis or separation using cesium chloride gradients.

Cat. No.: PRH5041
U.S. only

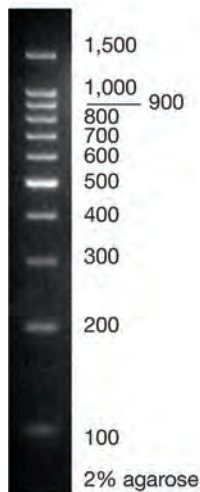
Ladders



Thermo Scientific GeneRuler DNA Ladders

For sizing and approximate quantification of a wide range of double-stranded DNA on agarose or polyacrylamide gels. Choose ladders for 100 to 1000 bp or 75 to 20,000 bp in undiluted or ready-to-use formats.

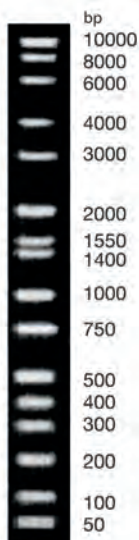
Cat. Nos.: FERSM0243, FERSM1333, FERSM1331



Promega 100 bp DNA Ladder Molecular Weight Marker

Features 11 fragments from 100 bp to 1,000 bp in 100 bp increments and includes an additional 1.5kb band. Comes with 6X Blue/Orange Loading Dye.

Cat. No.: PRG2101
U.S. only



Fisher Bioreagents Routine DNA Ladder

Ready-to-use DNA size standard with 16 bands and landmark doublets at 1400 and 1550 bp. Stable at room temperature for up to two years.

Cat. No.: BP2582200

SYBR Safe DNA Gel Stain

A Safe Alternative to Ethidium Bromide

Invitrogen SYBR Safe DNA Gel Stain is a highly sensitive stain for visualization of DNA in agarose or acrylamide gels. SYBR Safe stain is specifically formulated to be a less hazardous alternative to ethidium bromide that can be used with either blue-light or UV excitation.



Description	Quantity	Cat. No.
SYBR Safe DNA Gel Stain	400µL	S33102
SYBR Safe DNA Gel Stain in 0.5X TBE	1L, 4L	S33100, S33101
SYBR Safe DNA Gel Stain in 0.5X TAE	1L, 4L	S33111, S33112

Ladders and Agarose

Ladders

Invitrogen DNA Ladders are available in various formats and sizes ranging from 10 bp to 15 bp. Fragments are purified individually using proprietary chromatography-based technology. Our DNA ladders are stable at room temperature for prolonged periods and after multiple freeze-thaw cycles.

Agarose Reagents

Superior-quality Invitrogen UltraPure agarose and reagents are made from high-purity biochemicals and have been used in studies published in scientific journals for more than 20 years.

Stains

Invitrogen SYBR Gold Stain is 25 to 100 times more sensitive than ethidium bromide, a common dye for detecting DNA and RNA in gels.

Description	Quantity	Cat. No.
Ladders		
E-Gel 1kb Plus Express DNA Ladder	2 x 1.250mL	10488091
E-Gel Sizing DNA Ladder	2 x 1.250mL	10488100
E-Gel 50 bp DNA Ladder	2 x 1,000µL	10488099
E-Gel Ultra-Low-Range DNA Ladder, 10 to 300 bp	2 x 1,000µL	10488096
Invitrogen Ultra-Low-Range DNA Ladder, 10 to 300 bp	100µL	10597012
Invitrogen TrackIt 1kb Plus DNA Ladder	500µL	10488085
TrackIt 100 bp DNA Ladder	500µL	10488058
TrackIt Ultra-Low-Range DNA Ladder, 10 to 300 bp	500µL	10488023
TrackIt Cyan/Orange Loading Buffer, 6X	3 x 0.5mL	10482028
Agarose		
UltraPure Agarose	100g	16500100
UltraPure Low-Melting-Point Agarose	100g	16520100
UltraPure Agarose-1000	100g	16550100
Stains		
SYBR Gold Nucleic Acid Gel Stain, 10,000X in DMSO	500µL	S11494
UltraPure Ethidium Bromide, 10mg/mL	10mL	15585011

Invitrogen E-Gel Precast Gels

Hassle Free

Invitrogen E-Gel precast gels are self-contained and ready for use, with agarose and DNA stain combined in a disposable cassette. There are no gels to pour, buffers to make, staining or de-staining steps to perform, or gel boxes to assemble. Just load your samples and start the run.

E-Gels with SYBR Safe Stain offer:

- Convenience — available in a variety of formats for multiple applications
- Safety — SYBR Safe is less hazardous, highly sensitive, and available in both low- and high-throughput formats
- Speed — rapid, real-time molecular analysis with high-resolution image capture



Description	Number of Wells	Quantity	Cat. No.
Routine Electrophoresis			
E-Gel Agarose Gels with SYBR Safe DNA Gel Stain, 1%	11	10, 20, 50	A42100, A45202, A45203
E-Gel Agarose Gels with SYBR Safe DNA Gel Stain, 2%	11	10, 20, 50	A42135, A45204, A45205
E-Gel Agarose Gels with SYBR Safe DNA Gel Stain, 4%	11	10, 20	A42136, A45206
High-Throughput Electrophoresis			
E-Gel 48 Agarose Gels with SYBR Safe DNA Gel Stain, 1%	48 + 4 Marker	8, 32	G820801, G820841
E-Gel 96 Agarose Gels with SYBR Safe DNA Gel Stain, 1%	96 + 8 Marker	8, 32	G720801, G720841
E-Gel 48 Agarose Gels with SYBR Safe DNA Gel Stain, 2%	48 + 4 Marker	8, 32	G820802, G820842
E-Gel 96 Agarose Gels with SYBR Safe DNA Gel Stain, 2%	96 + 8 Marker	8, 32	G820802, G820842
High-Sensitivity Electrophoresis			
E-Gel EX Agarose Gels, 1%	11	10, 20	G401001, G402001
E-Gel EX Agarose Gels, 2%	11	10, 20	G401002, G402002
E-Gel EX Agarose Gels, 4%	11	10	G401004
Separation and Recovery			
E-Gel CloneWell II Agarose Gels with SYBR Safe, 0.8%	7	10	G661818
E-Gel SizeSelect II Agarose Gels with SYBR Gold II, 0.8%	7	10	G661012
Agarose			
UltraPure Agarose		100g, 500g	16500100, 16500500
UltraPure Agarose-1000		100g	16550100
UltraPure Low Melting Point Agarose		50g, 100g	16520050, 16520100

E-Gel Power Snap Electrophoresis System and Starter Kits

Fast, Safe, Simple

The all-in-one Invitrogen E-Gel Power Snap Electrophoresis System seamlessly integrates rapid sample separation and gel imaging into a single workflow.

- Faster analysis — from sample loading to image capture in as little as 15 minutes
- Safe workflow — minimal contact with hazardous chemicals
- Simple operation — intuitive user interface with large touchscreen and integrated systems



E-Gel Agarose System and Starter Kits for Nucleic Acid Electrophoresis

Description	Cat. No.
E-Gel Power Snap Electrophoresis Device	G8100
E-Gel Power Snap Camera	G8200
E-Gel Power Snap Electrophoresis Device Starter Kits	
<ul style="list-style-type: none"> • E-Gel Power Snap Electrophoresis Device • 10 E-Gel CloneWell II Agarose Gels with SYBR Safe, 0.8% • E-Gel 1kb Plus Express DNA Ladder with E-Gel Sample Loading Buffer (1X) 	G8168ST
<ul style="list-style-type: none"> • E-Gel Power Snap Electrophoresis Device • 10 E-Gel SizeSelect II Agarose Gels, 2% • E-Gel Sizing DNA Ladder 	G8162ST
E-Gel Power Snap Electrophoresis System Starter Kits	
<ul style="list-style-type: none"> • E-Gel Power Snap Electrophoresis Device and Camera • 10 E-Gel EX Agarose Gels, 1% • E-Gel 1kb Plus Express DNA Ladder with E-Gel Sample Loading Buffer (1X) • Gel Opening Knife 	G8341ST
<ul style="list-style-type: none"> • E-Gel Power Snap Electrophoresis Device and Camera • 18 E-Gel Agarose Gels with SYBR Safe, 1.2% • E-Gel 1kb Plus DNA Ladder with E-Gel Sample Loading Buffer (1X) 	G8351ST



The Right Tools for Your Nucleic Acid Electrophoresis Workflow

Separation without Anxiety

The right tools for nucleic acid electrophoresis can significantly improve and accelerate results and let you more quickly address downstream applications. Rely on the Invitrogen E-Gel Power Snap Device, hassle-free precast Invitrogen E-Gel Agarose Gels, Invitrogen SYBR Safe Stains, and Invitrogen UltraPure Agarose and Reagents for your workflow.

- A comprehensive product offering: devices, precast gels, stains, markers, and reagents
- Unique products to help streamline your workflow for fast, consistent results
- Precast gels in a wide variety of formulations, stains, gradients, and sample well configurations
- Products that improve user safety while reducing environmental impact

Precast Gels



Invitrogen E-Gel 48 Agarose Gels

Precast, ready-to-use, and designed for medium-throughput resolution of DNA fragments. Each gel contains 48 sample wells and 4 marker wells. Choose 1% or 2% formulations.

Cat. Nos.: G800801, G800802

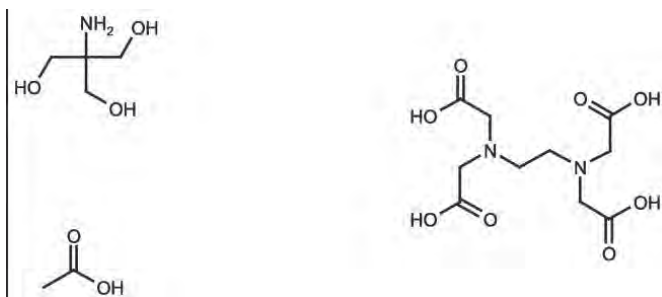


Invitrogen TrackIt 1kb Plus DNA Ladder

Premixed with 6X TrackIt Cyan/Orange Loading Buffer for tracking DNA migration. Supplied with loading dye and stable at room temperature for up to six months.

Cat. No.: 104-88-085

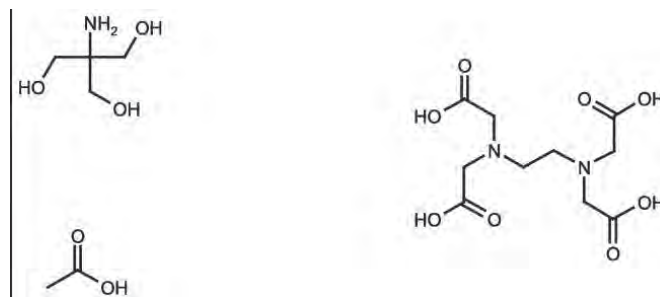
Reagents



Fisher Bioreagents TAE Buffer, 50X

Simplify buffer preparation by diluting this concentrated Tris-Acetate-EDTA buffer. DNase-, RNase-, and protease-free; filtered; and autoclaved. Your choice of 500mL, 1L, 4L, and 20L sizes.

Cat. Nos.: BP1332-500, BP1332-1, BP1332-4, BP1332-20



Fisher Bioreagents TBE Buffer, 10X

Save buffer preparation time by diluting this concentrated Tris-Borate-EDTA buffer. DNase-, RNase-, and protease-free; filtered; and autoclaved. Your choice of 1L, 4L, and 20L sizes.

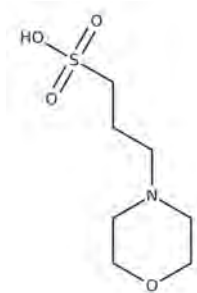
Cat. Nos.: BP1333-1, BP1333-4, BP1333-20



Fisher Bioreagents Molecular Biology Grade Water

Ultrapure and deionized for PCR, electrophoresis, DNA sequencing, enzymatic analyses, and more.

Cat. No.: BP2819-1



Fisher Bioreagents MOPS (3-(4-Morpholino)propane sulfonic acid)

This common buffering agent for electrophoresis of formaldehyde-denatured RNA is sold as fine white crystals.

Cat. No.: BP308-100



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Nucleic Acid Electrophoresis

Identify, quantify, and purify nucleic acids with high-quality DNA and RNA electrophoresis products from the Fisher Scientific channel.

- Gels
- Gel tanks
- Molecular weight markers and standards
- Running buffers

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Supplier and Other Trademarks:

FlashGel, Lonza, Promega

Trademarks of Thermo Fisher Scientific:

CloneWell, E-Gel, EasyCast, Fisher Bioreagents, Fisherbrand, Invitrogen, GeneRuler, Owl, SizeSelect, SYBR, Thermo Scientific, TrackIt, UltraPure

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Nucleic Acid

Electrophoresis

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