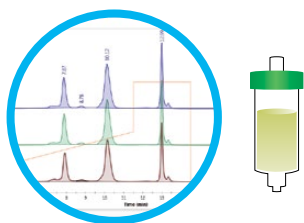


Protein Purification Workflow with
the NGC™ Chromatography System
and Stain-Free Gels

Following chromatography, quickly confirm the purity and yield of your protein with stain-free gels

Visual confirmation of protein purity and yield by gel electrophoresis in under 30 minutes.

Simplified protein purification



CHROMATOGRAPHY

- Use chromatography to separate complex biological mixtures within minutes

Fast run times



GEL ELECTROPHORESIS

- Run gels in as little as 20 min
- Available in handcast and precast gel formats

Quick protein visualization



GEL IMAGING

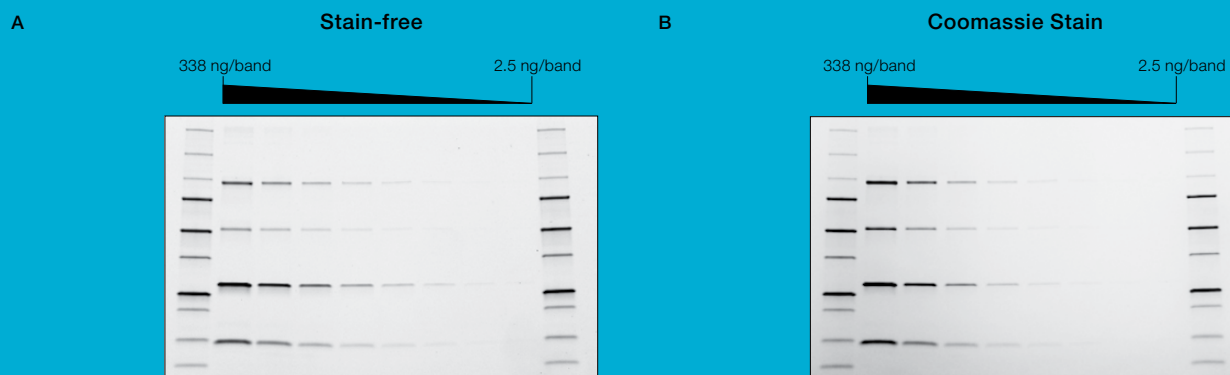
- Visualize proteins in 5 min with any stain-free enabled imager
- Eliminates all staining and destaining steps

How does stain-free technology work?

Stain-free gel chemistry uses a unique compound, which, when activated, reacts with tryptophan residues in your protein sample to emit a fluorescence signal. This allows the quick visualization of proteins without any staining steps.

Learn more!
Bulletin 6008

Stain-free imaging is as sensitive as Coomassie staining

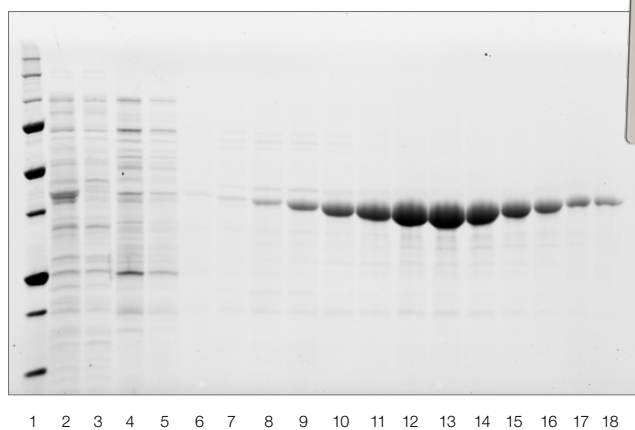
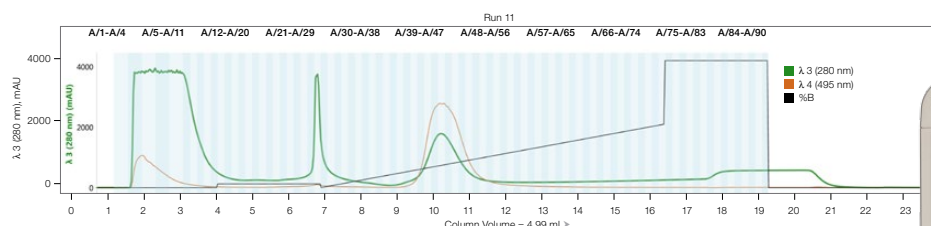


Stain-free and Coomassie-stained gels demonstrate comparable sensitivity when visualizing proteins with varying tryptophan content. 4–20% Criterion™ TGX Stain-Free™ Gels were loaded with Precision Plus Protein™ Unstained Standards and a serial dilution of a protein mixture of four different proteins with varying tryptophan (Trp) content: phosphorylase B (1.4% Trp, 97 kD), glutamic dehydrogenase (0.8% Trp, 56 kD), carbonic anhydrase (2.3% Trp, 31 kD), and lysozyme (3.4% Trp, 14 kD). Gels were run at 300 V for 20 min and immediately imaged with the Gel Doc™ EZ Imager (A). Gels were then stained with Bio-Safe™ Coomassie Stain and imaged on the Gel Doc EZ Imager (B).

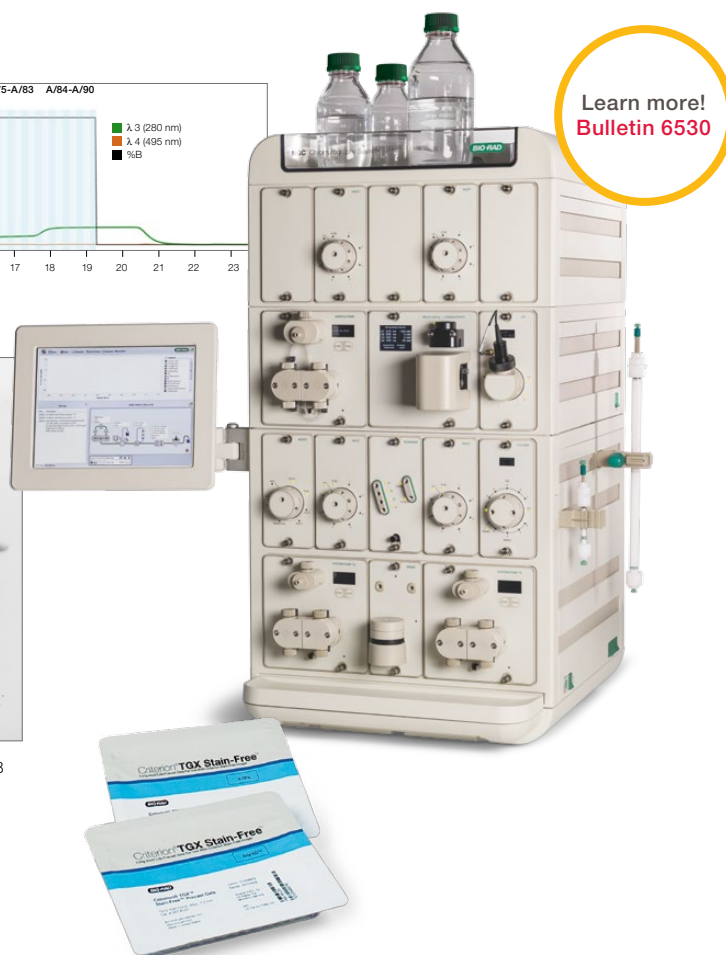
Confidently determine the next steps in your chromatography workflow

Use stain-free gels to quickly:

- Assess protein purity and yield
- Identify which fractions to pool
- Optimize chromatography runs



Visual confirmation of chromatography results in a single stain-free gel. An 18-well Any kD™ Criterion™ TGX Stain-Free™ Gel was run at 300 V for 20 min. Lane 1 was loaded with 10 µl Precision Plus Protein Unstained Standards. Lanes 2 and 3 contained 20 µl of a 1:20 dilution of load and flowthrough, respectively. Lanes 4–18 contained 20 µl of each fraction.



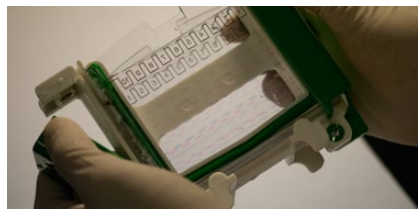
Stain-free gels are available in both handcast and precast gel formats

FastCast™ Handcast Gels



- Ready to run in as little as 30 min
- Remain fresh for up to 4 weeks at 4°C
- All the benefits of TGX Stain-Free technology, including fast run times and stain-free visualization of proteins in 5 min


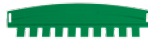
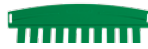
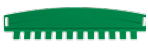


Precast gels



- Available in mini and midi precast gel sizes
- Run up to 26 samples on a single gel
- All the benefits of TGX Stain-Free technology, including fast run times and stain-free visualization of proteins in 5 min






Ordering Information

Mini-PROTEAN® TGX Stain-Free™ Precast Gels

Description	 8+1-Well 30 µl	 10-Well 30 µl	 10-Well 50 µl	 12-Well 20 µl	 15-Well 15 µl	 IPG Well 7 cm IPG Strip
7.5% Resolving Gel	456-8029	456-8023	456-8024	456-8025	456-8026	456-8021
10% Resolving Gel	456-8039	456-8033	456-8034	456-8035	456-8036	456-8031
12% Resolving Gel	456-8049	456-8043	456-8044	456-8045	456-8046	456-8041
4–15% Resolving Gel	456-8089	456-8083	456-8084	456-8085	456-8086	456-8081
4–20% Resolving Gel	456-8099	456-8093	456-8094	456-8095	456-8096	456-8091
8–16% Resolving Gel	456-8109	456-8103	456-8104	456-8105	456-8106	456-8101
Any kD Resolving Gel	456-8129	456-8123	456-8124	456-8125	456-8126	456-8121

All formats are available in 10-packs (catalog numbers listed) or 2-packs (add an "S" to the end of the catalog number listed).

Criterion TGX Stain-Free™ Precast Gels**

Description	 12+2-Well* 45 µl	 18-Well 30 µl	 26-Well 15 µl	 Prep+2-Well* 700 µl	 IPG+1-Well* 11 cm IPG Strip
7.5% Gel	567-8023	567-8024	567-8025	—	—
10% Gel	567-8033	567-8034	567-8035	—	—
12% Gel	567-8043	567-8044	567-8045	—	—
18% Gel	567-8073	567-8074	567-8075	567-8072	567-8071
4–15% Gel	567-8083	567-8084	567-8085	567-8082	567-8081
4–20% Gel	567-8093	567-8094	567-8095	567-8092	567-8091
8–16% Linear Gradient	567-8103	567-8104	567-8105	567-8102	567-8101
10–20% Linear Gradient	567-8113	567-8114	567-8115	567-8112	567-8111
Any kD Gel	567-8123	567-8124	567-8125	567-8122	567-8121

* Reference wells accommodate 15 µl of markers/standards. ** Criterion TGX Stain-Free Gels are sold as a single gel.

Catalog # Description

Gel Casting Solutions

161-0180	TGX Stain-Free™ FastCast™ Acrylamide Starter Kit, 7.5%
161-0181	TGX Stain-Free FastCast Acrylamide Kit, 7.5%
161-0182	TGX Stain-Free FastCast Acrylamide Starter Kit, 10%
161-0183	TGX Stain-Free FastCast Acrylamide Kit, 10%
161-0184	TGX Stain-Free FastCast Acrylamide Starter Kit, 12%
161-0185	TGX Stain-Free FastCast Acrylamide Kit, 12%

Catalysts

161-0700	Ammonium Persulfate (APS), 10 g
161-0800	TEMED, 50 ml

Buffers

161-0772	10x Tris/Glycine/SDS, 5 L
161-0737	2x Laemmli Sample Buffer, 30 ml
161-0747	4x Laemmli Sample Buffer, 10 ml

Electrophoresis Cells

165-6001	Criterion™ Cell , includes electrophoresis buffer tank, lid with power cables, 3 sample loading guides (12+1-well, 18-well, 26-well)
165-8004	Mini-PROTEAN® Tetra Cell for Mini Precast Gels , 4-gel system includes electrode assembly, companion running module, tank, lid with power cables, mini cell buffer dam
165-8000	Mini-PROTEAN Tetra Cell , 10-well, 0.75 mm thickness; 4-gel system includes 5 combs, 1 set of glass plates, 2 casting stands, 4 casting frames, sample loading guide, electrode assembly, mini cell buffer dam companion running module, tank, lid with power cables
165-8001	Mini-PROTEAN Tetra Cell , 10-well, 1.0 mm thickness; 4-gel system includes 5 combs, 1 set of glass plates, 2 casting stands, 4 casting frames, sample loading guide, electrode assembly, mini cell buffer dam companion running module, tank, lid with power cables
165-8006	Mini-PROTEAN Tetra Cell , 10-well, 1.5 mm thickness; 4-gel system includes 5 combs, 1 set of glass plates, 2 casting stands, 4 casting frames, sample loading guide, electrode assembly, mini cell buffer dam companion running module, tank, lid with power cables

Stain-Free Enabled Imagers

170-8270	Gel Doc EZ Imaging System with Image Lab™ Software , PC or Mac, includes darkroom, camera, cables
170-8195	Gel Doc™ XR+ System with Image Lab Software , PC or Mac, includes darkroom, UV transilluminator, epi-white illumination standard filter, camera, cables
170-8265	ChemiDoc™ XRS+ System with Image Lab Software , PC or Mac, includes darkroom, UV transilluminator, epi-white illumination standard filter, camera, power supply, cables
170-8370	ChemiDoc™ Touch Imaging System , includes internal computer, 12" touch-screen display, camera, Image Lab Touch Software, chemi/UV/stain-free sample tray, Clarity™ Western ECL Substrate, Precision Plus Protein Dual Color Standards
170-8280	ChemiDoc™ MP System with Image Lab Software , PC or Mac, includes darkroom, UV transilluminator, epi-white illumination standard filter, camera, power supply, cables

Catalog # Description

Mini-PROTEAN and Criterion Empty Cassettes and Combs

456-0001	Mini-PROTEAN Empty Cassettes , 1.0 mm thick, IPG well, pkg of 50
456-0003	Mini-PROTEAN Empty Cassettes , 1.0 mm thick, 10-well, pkg of 50
456-0005	Mini-PROTEAN Empty Cassettes , 1.0 mm thick, 12-well, pkg of 50
456-0006	Mini-PROTEAN Empty Cassettes , 1.0 mm thick, 15-well, pkg of 50
456-0011	Mini-PROTEAN Combs , IPG well, pkg of 50, for use with 456-0001
456-0013	Mini-PROTEAN Combs , 10-well, pkg of 50, for use with 456-0003
456-0015	Mini-PROTEAN Combs , 12-well, pkg of 50, for use with 456-0005
456-0016	Mini-PROTEAN Combs , 15-well, pkg of 50, for use with 456-0006
345-9901	Criterion Empty Cassettes , 1 mm, 12+2-well, pkg of 10
345-9902	Criterion Empty Cassettes , 1 mm, 18-well, pkg of 10
345-9903	Criterion Empty Cassettes , 1 mm, 26-well, pkg of 10
345-9904	Criterion Empty Cassettes , 1 mm, prep+2-well, pkg of 10
345-9906	Criterion Empty Cassettes , 1 mm, IPG+1-well, pkg of 10

Protein Standards

161-0393	Precision Plus Protein All Blue Standards Value Pack , 5 x 500 µl, 250 applications
161-0396	Precision Plus Protein Unstained Standards Value Pack , 5 x 1,000 µl, 500 applications

NGC Medium Pressure Chromatography Systems and Modules

788-0001	NGC Quest™ 10 System
788-0003	NGC™ Quest 10 Plus System
788-0002	NGC Quest 100 System
788-0004	NGC Quest 100 Plus System
788-0005	NGC Scout™ 10 System
788-0007	NGC™ Scout 10 Plus System
788-0009	NGC Discover™ 10 System
788-4010	NGC Buffer Blending Valve Module
788-4006	NGC Inlet Valve Module
788-4011	NGC pH Valve Module
788-4012	NGC Column Switching Valve Module (10 ml)
788-4026	NGC Column Switching Valve Module (100 ml)
788-4013	NGC Outlet Valve Module

ENrich™ High-Resolution Ion Exchange Columns

780-0001	ENrich Q , 1 ml
780-0003	ENrich Q , 8 ml
780-0021	ENrich S , 1 ml
780-0023	ENrich S , 8 ml

ENrich High-Resolution Size Exclusion Columns

780-1070	ENrich 70 , 24 ml
780-1650	ENrich 650 , 24 ml

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