

RunBlue Bis-Tris Protein Gels: no more fear to break gels, with highest quality electrophoresis protein gels

RunBlue Bis-Tris 10x10cm Protein Gels have been developed to provide an alternative to NuPAGE® Bis-Tris gels. RunBlue Bis-Tris Protein gels run with the same voltages and times, in the same tanks, using the same MES/MOPS buffers as NuPAGE® Bis-Tris gels and achieve highly comparable results with exceptional reproducibility. RunBlue Bis-Tris Protein Gels also benefit from the usability enhancements present in all RunBlue gels such as comb/strip free design and tear proof composition.

Breaking an electrophoresis gel is a frustrating issue when carrying out a transfer for Western blotting.

Prevent such a pitfall, that can be a disaster when analyzing precious samples, and fear no more, using **tear proof** composition gels - high quality RunBlue Bis-Tris protein gels with comb/strip free design: **save your experiment and get nicer results!**

Benefits of RunBlue Bis-Tris:

- **Resilient gel matrix**
 - **tear-proof gel for risk-free handling:**
10 times stronger than conventional hand-cast gels
- **Standard Bis-Tris Buffers**
 - compatible with MES and MOPS buffers
 - **Standard format** – compatible with tanks such as NuPAGE® XCell SureLock™ Mini-Cell
 - Standard Bis-Tris Protocol – **fast run times** at 200V
- **Highest quality and improved features:**
 - Neutral running pH – **sharp bands** and high protein integrity
 - Unique homogeneous polymerisation – increased consistency and no residual free acrylamide
 - Wells – run up to 12 or 17 samples simultaneously– load up to 35 µl (12 well) or 20 µl (17 well)
 - **Protruding teeth** – no well contamination in case of overloading
 - **Comb-free** – reduced risk of broken or damaged teeth
 - **Strip-free** – no potentially ruined Western Blots
 - Neutral buffer and high chemical stability – **shelf life of 1 year at 4°C** and 3 months at RT



RunBlue Bis-Tris Protein Gels

Cat.Number

(pack of 10)

8%	12-well	AY1DV0-NBT00812
8%	17-well	AY1DW0-NBT00827
10%	12-well	AY1DX0-NBT01012
10%	17-well	AY1DY0-NBT01027
12%	12-well	AY1DZ0-NBT01212
12%	17-well	AY1E00-NBT01227
4-12%	12-well	AY1E10-NBT41212
4-12%	17-well	AY1E20-NBT41227

[Detailed product information](#)

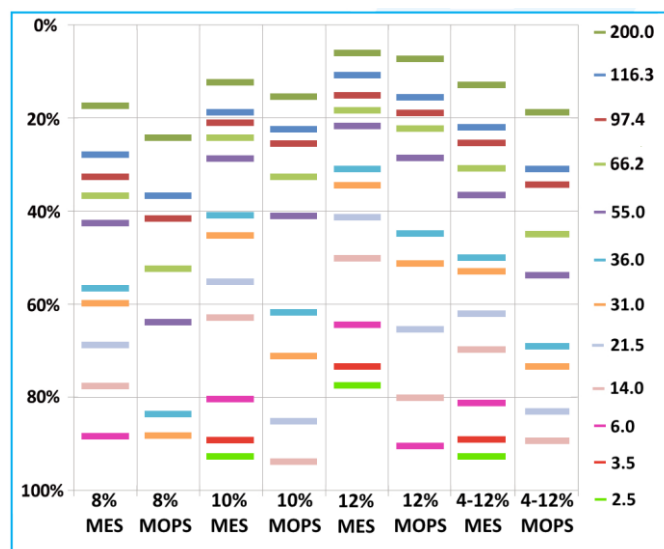
[Technical sheet](#)

[Related products](#)

Detailed description – RunBlue Bis-Tris Protein Gels

RunBlue Performance

RunBlue Bis-Tris Protein Gels are based on Bis-Tris neutral gel buffer system, providing a migration profile highly comparable to Nupage® Bis-Tris gels. RunBlue Bis-Tris Protein Gels are also compatible with the NuPAGE® XCell SureLock™ Mini-Cell running tanks and MES/MOPS buffers. RunBlue Bis-Tris Protein Gels have an approximate range of 3.5kDa to 160kDa with MES Buffer and 30kDa to 180kDa when using MOPS. RunBlue Protein Gel's proprietary polymerisation process results in more uniform gels between batches, with decreased variability and improved repeatability of results. These gels are compatible with Invitrogen® XCell SureLock™ Mini-cell equipment. For using these gels with any other kind of tank, please contact us first. They also have a 3 month shelf life at room temperature, which is convenient when fridge space is limited, and a 2 year shelf life in the fridge, which is useful when gel requirements are low or varying.



Usability Enhancements

In addition to their high resolution separation of protein all RunBlue Protein Gels have a number of enhancements to improve and streamline usability. RunBlue Protein Gels are up to 10 times stronger than conventional hand-cast gels and can stand up to repeated handling. This practically eliminates the risk of torn and unusable gels encountered during normal gel manipulation. More lanes than standard gels allows more proteins to be run and wide, deep wells allow higher volumes to be loaded.

Cassettes have no comb or tape to remove and no excess gel to trim, all of which improves the speed and efficiency of the loading and running process. Wells are outlined and numbered for quicker sample loading and the cassette is labeled with gel type, percentage and a unique lot number for traceability. Well teeth protrude above the cassette to prevent sample contamination between wells in case of overloading.

Flexible Usage

RunBlue Bis-Tris Protein Gels are highly optimised for a MES/MOPS buffer system and must be run with these buffers. Usage of MES or MOPS will vary depending on the molecular weight range of proteins to be resolved. RunBlue Bis-Tris Protein Gels must be run with MES or MOPS buffers such as RunBlue MES Running Buffer and RunBlue MOPS Running Buffer which are available as a premixed 20X solution. And the samples must be prepared with a Tris-HCl LDS sample buffer such as RunBlue LDS Bis-Tris Sample buffer which is available as a premade 4X solution. RunBlue Bis-Tris Protein Gels are also compatible with Nupage® MES and MOPS buffers and NuPAGE® LDS Sample Buffer. RunBlue Protein Gels have an extended shelf life of 2 years at 4°C which is ideal for large stocks or infrequent use. These gels are compatible with Invitrogen® XCell SureLock™ Mini-cell equipment. They also have a 3 month shelf life at room temperature which is convenient when fridge space is limited.

Improved Safety

Polyacrylamide gels are based on the polymerisation of liquid acrylamide and bis-acrylamide. The polymerisation is usually induced by the addition of a source of free radicals and a stabilizer (usually APS & TEMED) which induces cross link formation between acrylamide and bis-acrylamide monomers. This localised chemical induction results in heterogeneous polymerisation across the gel due to acrylamide concentration gradients being generated, and can lead to the presence of residual free acrylamide at the end of the polymerisation.

A unique physical induction technology ensures homogenous polymerisation across the whole gel and no residual free acrylamide after the end of the polymerisation. Numerous studies have shown the acrylamide monomer is a neurotoxin and possible carcinogen*. Acrylamide can be inhaled as a dry powder, evaporate from liquid solution and sublimate from solid gels if not fully polymerised. RunBlue gels are polymerised in a unique homogenous manner that results in a consistent gel with minimal or no residue after casting.

* AIHA J (Fairfax, Va). 2002 Jul-Aug;63(4):468-73. [Inhalation exposures to acrylamide in biomedical laboratories.](#)

Technical sheet – Bis-Tris Precast gel cassette Instruction Manual

Introduction

RunBlue precast gels have superior rigidity and stability over traditional polyacrylamide gels. For better convenience, combs are already removed. The cassette locks the fingers in place and there is no tape to be removed.

Storage

Long term storage of up to 12 months store at 4°C. For expiry date see box.

Can be stored for 3 months at room temperature.

Sample Preparation

We recommend using RunBlue LDS Sample Buffer 4x which has been specifically formulated for use with our gels. The ions in the sample buffer match the gel buffer and it has a higher density, making it compatible with the density of the running buffer.

Reagent	Reduced	Non-Reduced
Sample	x µl	x µl
Deionized Water	6.5 - x µl	7.5 - x µl
4X Sample Buffer	2.5 µl	2.5 µl
10X Reducing Agent	1 µl	--
Total Volume	10 µl	10 µl

Heat the samples, reduced or non-reduced, for 10 minutes at 70 ° C. Reduced samples should be run within 2 hours to prevent re-oxidation.

Maximum volume that can be loaded per well for 12 well gels is 35 µl.

Maximum volume for 17 well gels is 25 µl.

Running Buffer Preparation

Only use RunBlue Bis-Tris gels with MES/MOPS running buffers. Other Running Buffer formulas will not produce good results.

Ensure buffers are correctly diluted with ultra-pure water if made from stock solutions.

We recommend using fresh buffer for each run for both the inner and outer chamber. Never use old buffers for the inner chamber (cathode).

Sample Loading

Shortly before loading the samples, rinse the wells two times with ultrapure water. Use thin pipette tips to load samples near the bottom of the well.

Run Conditions

NOTE: Please do not run NuPage Bis-Tris gels and Bis Tris gels in the same tank at the same time, as it will adversely affect results for both gels.

Place the RunBlue gel cassette in the tank so that the shorter plate faces the buffer core.

When running one gel, use a buffer dam to seal the other side.

Fill the inner (cathode) chamber with 200 ml fresh running buffer until it overflows into the outer (anode) chamber.

Check whether the cell has been assembled properly so that there are no leaks, then pour approximately 600 ml running buffer into the outer chamber. Do not use less than 400 ml in the outer chamber.

Run the gel(s) until the blue dye front nears the bottom of the cassette as follows:

	MES Buffer	MOPS Buffer
Voltage	200 V	200 V
Start current	90-120mA/gel	80-115mA/gel
End current	40-60 mA/gel	40-60 mA/gel
Run time	~45min	~55min

Gel Staining

Remove the gel from the cassette into a staining tray and cover with 25 ml Instant Blue (UPG4562A).

Protein bands will be visible within minutes.

Leave the gel in stain for at least one hour before transferring into water, if you wish to dry or store the gel.

Alternatively store the gel in stain.

For silver staining, fix proteins for 10 minutes with a solution of 50% methanol, 10% acetic acid and 20mM sodium bisulfite.

The sodium bisulfite can be added by diluting 1ml of 800x Antioxidant (NXA30010) in 200 ml fixative. Substitute this fix step with the manufacturer's silver staining protocol and follow the r

step with the manufacturer's silver staining protocol and follow the remaining manufacturer's method.

Other gel stains can be used with RunBlue gels, please refer to protocols relevant to the specific stain.

Gel Drying

The gels can be dried without cracking between cellophane after equilibrating with RunBlue Gel Drying Solution (NXA04510).

- 1) Ensure that the gel has been staining for at least 1 hour. Further processing of the gel prior to completion of the staining process may result in protein destaining and reduced sensitivity. If this occurs simply restain the gel by incubating overnight in InstantBlue.
- 2) Submerge the gel in approximately 100 ml ultrapure water and incubate for at least 1 hour while gently rocking. Optionally adsorbent paper or paper towel can be added. Gels can be incubated overnight in water.
- 3) Incubate the gel in 'RunBlue gel drying solution' for 10 minutes and wet 2 cellophane membranes.
- 4) The gel is now ready for drying between the wetted cellophane membranes

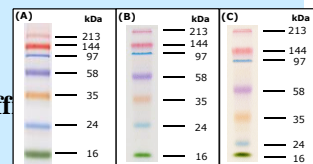
Related products

Uptima - BioSciences innovation – provides also complementary reagents:

Electrophoresis reagents

[Prices and technical sheets on line](#)

Acrylamide/Bis-Acrylamide 29:1 Solution 40%	UP864927, 500 ml
Acrylamide/Bis-Acrylamide 37.5:1 Solution 40%	UP864937, 500 ml
Acrylamide Solution 4X-40%	UP873376, 500 ml
Bis-Acrylamide Solution 2%	UP864965 500 ml
Biotinylated Protein molecular weight markers for ECL MW 6.5, 14.3, 20.1, 29.0, 39.8, 58.1, 97.4, 116.0, 205 KD + 2 blue markers for direct transfer eff serves also as positive control of ECL immunostaining	UP344440, 20 lanes
Coolored Protein molecular weight markers MW 213, 144, 97, 58, 35, 24 and 16 Kda, each with a different colour, for easier visualization	L77151, 500µl
Pre-cast GeBaGels	Product Highlight
Horizontal acrylamide pre-cast gels – get 8 gels + an electrophoresis tank for less than 110€ !	



Buffers & Saturating agents

BSA powder	UPQ84170, 100g	UPQ84172, 1Kg
BSA 30% solution <i>No tedious weighing and dissolution! Spare time!</i>	UP900100, 50ml	UP900101, 500ml
BSA SeaBlock solution (non mammalian serum)	UP40301A, 500ml	
Tween® 20, pure	15874A, 1 L	
Tween® 20, 20% solution, oxidant free	UP158740, 5 x 10 ml	
PBS powder packs (makes 10L)	UP68723A, 1 pack	
PBS Buffer Tabs, 1tab/100ml	UP307157, 100 tabs	

[Prices and technical sheets on line](#)

Blotting membranes - Protran

BA83 (0) [Protran prices](#) [Product Highlight](#)

Sheets 20 x 20 cm	S31441, 5u	BN3801, 5u
Sheets 30 x 60 cm	875900, 5u	324621, 5u
Roll 30 cm x 3 m	BN3841, 1u	U60640, 1u

Secondary antibodies & reagents

[HRP \(Perox.\)](#)

[AP \(Alk.Phos.\)](#)

anti Human IgG(H+L) – HRP (Gt)	UP135240, 1mg	762740/UP893090, 1mg
anti Mouse IgG(H+L) – HRP (Gt)	UP446330, 1mg	UP437050, 1mg
anti Rabbit IgG(H+L) – HRP (Gt)	UP511380, 1mg	UP225950, 1mg
Streptavidin) – HRP	UP395888, 1mg	UP395888, 1mg

Many other formats and specificities are available (species, hosts, pre-adsorbed, Fab'2, anti

Other

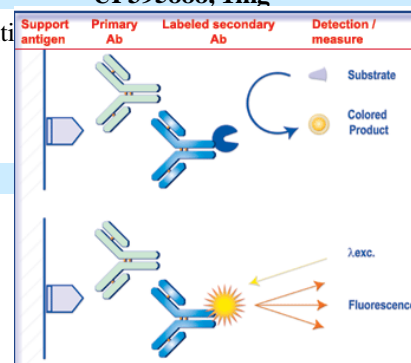
Radiographic films for ECL detection

[Product Highlight](#)

[Products HighLights Overview](#)

Information inquire

Reply by Fax : +33 (0) 4 70 03 82 60 or email at interbiotech@interchim.com



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