Product Specification

Product:	Pre-cast Gel (Tris-Glycine), 1.0mm, 10wells
Product Code:	BPCG1010T-XXXT

Description

Bio Basic Asia Pacific's Pre-cast polyacrylamide gels are made for high-performance and better band resolution for your downstream protein identification.

Features

- Produced using automated gel casting technology to ensure consistent and stable gel quality
- Coated plastic plate to effectively reduce non-specific adsorption of protein and make the protein bands sharper and clearer
- Bio Basic Asia Pacific's Precast Gels do not contain SDS. Compatible with denaturing and native electrophoresis
- Available in different acrylamide concentrations, including gradient gels. We offer 10%,12%,15% and 4-15%,4-20%, 8-16%,8-20% of resolving gels
- Compatible with mainstream mini electrophoresis tanks on the market, such as Bio-Rad, Tanon and Junyi Dongfang, etc. (Life Technology Novex Mini-Cell (use with BBAP adaptor)

Product Specification

- Pack Size: 10gels/pack
- Height of 4% stacking gel: 1.5cm
- Ratio of acrylamide to methylene bis acrylamide: 29:1
- Gel thickness: 1.0mm
- Well format: 10wells
- Max sample loading volume: 50μL/well
- Acrylamide %: Refer to Gel Selection Guide below
- Cassette size: 100×89×4.8mm
- Gel size: 84×74×1mm
- For research use only. Not for use in diagnostic procedures

Storage

Stored at 4℃ for 12 months; do not freeze

Gel Selection Guide:

Cat. #	Concentration	Wells	Maximum loading volume	Running buffer	Voltage
BPCG1010T-010T	10%	10	50 µL	Tris-Gly	180 V
BPCG1010T-012T	12%	10	50 µL	Tris-Gly	180 V
BPCG1010T-015T	15%	10	50 µL	Tris-Gly	180 V
BPCG1010T-415T	4-15%	10	50 µL	Tris-Gly	180 V
BPCG1010T-420T	4-20%	10	50 µL	Tris-Gly	180 V
BPCG1010T-816T	8-16%	10	50 µL	Tris-Gly	180 V
BPCG1010T-820T	8-20%	10	50 µL	Tris-Gly	180 V

Protocol:

Bio Basic Asia Pacific's Pre-cast polyacrylamide gels do not contain SDS and can be used for denaturing and native electrophoresis depending on the running buffer

For non-denaturing electrophoresis

1. The protein mobility of native electrophoresis is affected by various factors such as protein molecular weight and protein spatial structure
2. Prepare sample: Mix 5× protein sample loading buffer for native PAGE, without DTT (5×) (Cat. #: BPSB00301) or with DTT (Cat. #: BPSB00302) with sample in 1:4 ratio (volume)
3. Prepare running buffer for native gel electrophoresis: 10X Tris-Glycine (TG) Buffer Solution, pH 8.3 (Cat. #: A0028). Running buffer must be diluted to 1X final concentration before use
4. Take the Pre-cast Gels (Tris-Gly) out of the bag and **remove the sealing tape at the bottom of gel cassette**. Assemble the gels to the electrophoresis tank, add the running buffer, and then gently pull the comb out of the cassette
5. Rinse the wells several times with 1X running buffer to remove storage buffer before loading of samples. Load the appropriate volume of your samples and ladder into the respective wells
   Note: Avoid inserting the pipette tip too deep into the sample wells to prevent sample leakage caused by deformation of the plastic plates
6. Start the gel electrophoresis: The electrophoresis conditions are usually 180V, 50~60 min
   Note: At fixed 180V, the initial current will be approximately 75mA per gel but will gradually decrease over time. Run gel at 150V if better resolution bands are preferred. (Please adjust voltage and duration according to your experiment setup)
7. Upon completion of the electrophoresis, retrieve the gel from the gel cassette. Open the gel plates using the gel opener from top to middle then bottom on one side. Repeat the process on the other side of the plates to separate the plates. Gently remove the gel from the plate to prevent gel cracking
   Note: If the isoelectric point of the protein samples is greater than 7, you will need to reverse the electrodes for native electrophoresis

For denaturing electrophoresis

1. Please refer to “Gel migration chart” below to select the appropriate gel % for the resolving of protein based on size
2. Prepare sample: Mix 5× protein sample loading buffer for SDS-PAGE, without DTT (5×) (Cat. #: BPSB00201) or with DTT (Cat. #: BPSB00202) with sample in 1:4 ratio (volume) and then heat the samples at 95°C for 5-10mins.
3. Prepare running buffer for SDS-PAGE: 10X Tris-Glycine-SDS (TG-SDS) Buffer Solution, pH 8.3 (Cat. #: A0030). Running buffer must be diluted to 1X final concentration before use
4. Take the Pre-cast Gels (Tris-Gly) out of the bag and **remove the sealing tape at the bottom of gel cassette**. Assemble the gels to the electrophoresis tank, add the running buffer, and then gently pull the comb out of the cassette
5. Rinse the wells several times with 1X running buffer to remove storage buffer before loading of samples. Load the appropriate volume of your samples and ladder into the respective wells
   Note: Avoid inserting the pipette tip too deep into the sample wells to prevent sample leakage caused by deformation of the plastic plates
6. Start the gel electrophoresis: The electrophoresis conditions are usually 180V, 50~60 min
   Note: At fixed 180V, the initial current will be approximately 75mA per gel but will gradually decrease over time. Run gel at 150V if better resolution bands are preferred. (Please optimize the voltage and duration according to your experiment setup)
7. Upon completion of the electrophoresis, retrieve the gel from the gel cassette. Open the gel plates using the gel opener from top to middle then bottom on one side. Repeat the process on the other side of the plates to separate the plates. Gently remove the gel from the plate to prevent gel cracking
   Note: If the isoelectric point of the protein samples is greater than 7, you will need to reverse the electrodes for native electrophoresis

Gel Migration Chart for Precast Gel (Tris-Gly)

Using our 10-250kDa Wide Range Blue/Red/Green Three Color Pre-stained Protein Ladder (Cat #: BZ0011G)

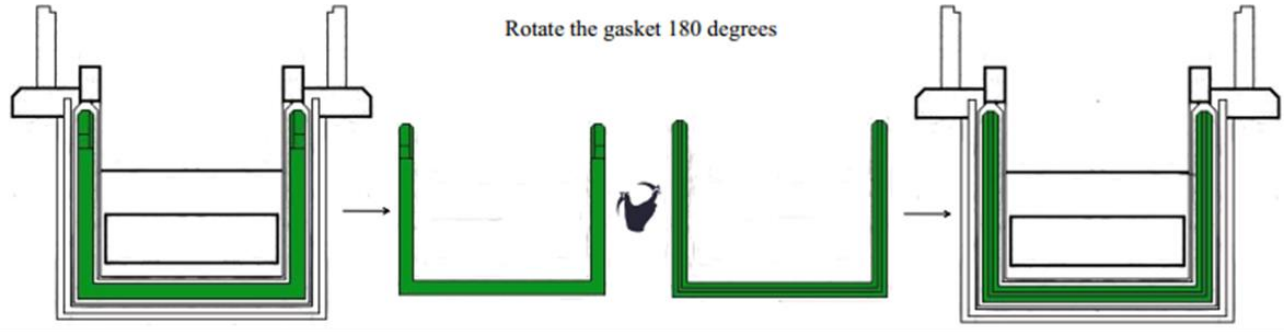
Compatible Electrophoresis Tanks:

Bio Basic Asia Pacific's Precast Gels (Tris-Gly) is compatible with most common mini SDS-PAGE tanks, including:

- Bio-Rad Mini-PROTEAN II/3 /Tetra System, a simple modification is required, please refer below)
- Hoefer Mighty Small (SE 250/ SE 260/ SE 280)
- Life Technology Novex Mini-Cell (use with BBAP adaptor)
- Any other electrophoresis tank with a width of 10cm

Modification using with Bio-Rad electrophoresis tank:

1. Pull out the U-shaped green silicone gasket, electrode inner core silicone
2. Flip the gasket inside-out and insert back the gasket (Ensure gasket is firmly inserted back to prevent leakage)
3. System is now ready to use with Bio Basic Asia Pacific's Precast Gels (Tris-Gly)



Pull out green silicon gasket | Flip the gasket inside-out | Firmly insert gasket back