

# Verification of the FastGene PAGE Protein System

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Marketing Division

WATANABA SAKI

Technical Support



## Purpose

The FastGene PAGE Protein System compares Mini-PROTEAN Tetra Vertical Electrophoresis Cells (BIORAD) to verify whether comparable electrophoresis can be performed and whether gel preparation and electrophoresis can be performed successfully.

## Verification I

Evaluation of compatibility of Mini-PROTEAN® TGX™ Precast Gels (BIORAD) with the FastGene PAGE Protein System

## Verification II

Ease of hand-made Gel by FastGene PAGE Protein System

## Verification I

# Evaluation of compatibility of Mini-PROTEAN® TGX™ Precast Gels (BIORAD) with the FastGene PAGE Protein System

### 【Method】

Evaluate whether FastGene PAGE Protein System fit the Mini-PROTEAN® TGX™ Precast Gels (BIORAD) and evaluate comparing with Mini-PROTEAN Tetra Vertical Electrophoresis Cells (BIORAD) whether electrophoresis can be performed without problems.

### 【Conditions】

Gel: 4-20%×2 sheet

Buffer: 25 mM Tris, 192 mM glycine, 0.1% SDS

Voltage: 300V

Time: 15 minutes

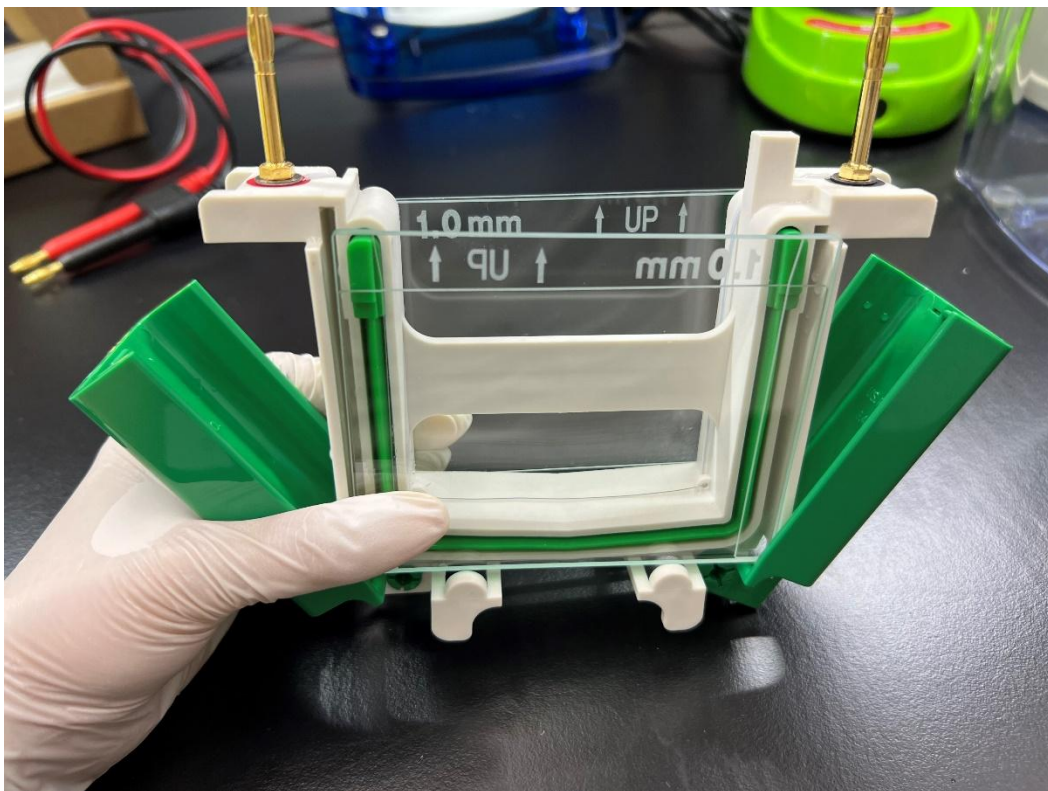
Ladder: BLUE Star PLUS Prestained Protein-Ladder 5 μL

### 【Evaluation item】

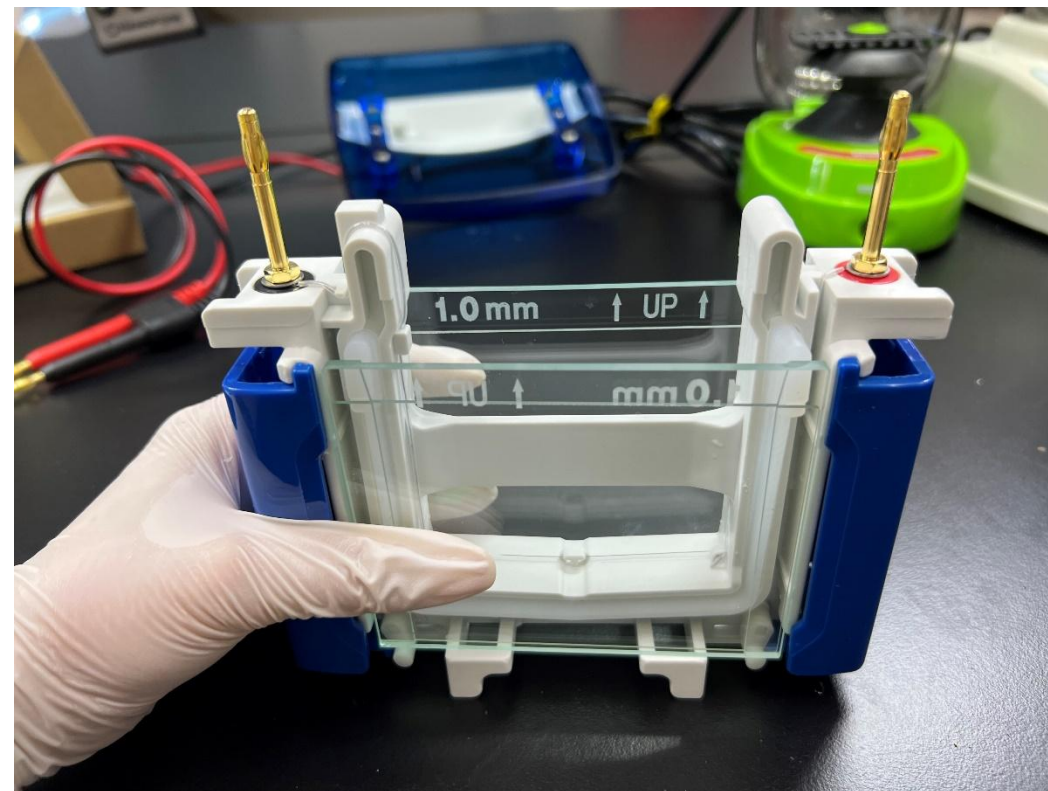
- Ease of handling
- Compatibility with Mini-PROTEAN® TGX™ Precast Gels (BIORAD)
- Buffer leakage
- Band distortion
- Electrophoretic speed

# Ease of handling

## Mini-PROTEAN Tetra Vertical Electrophoresis Cell (BIORAD)



## FastGene PAGE Protein System



I felt that FastGene chamber was easier to handle than BIORAD chamber .  
People with small hands, such as women, may find it easier to handle.

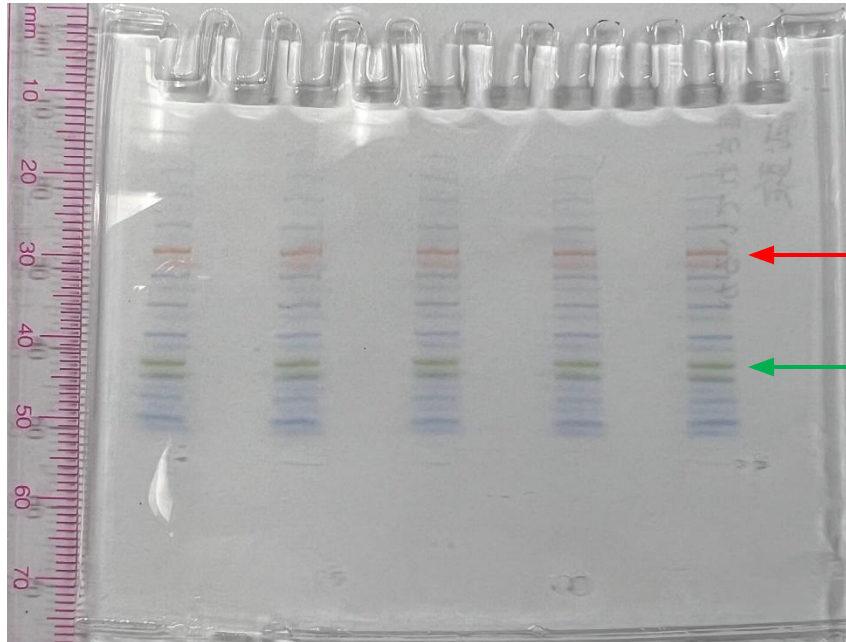
# Compatibility and Buffer leakage



- Mini-PROTEAN® TGX™ Precast Gels fit the FastGene PAGE protein system
- No buffer leakage was observed

# Electrophoretic speed

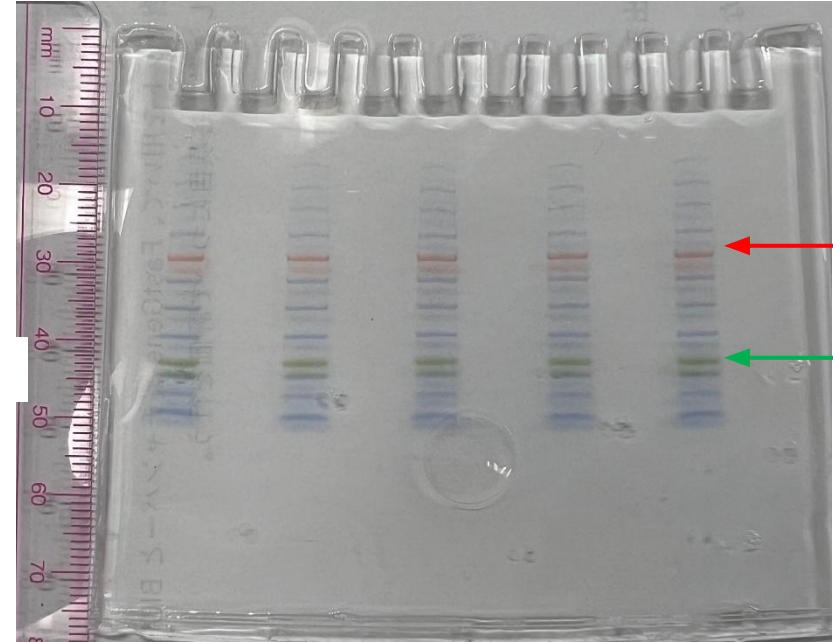
## Mini-PROTEAN Tetra Vertical Electrophoresis Cell (BIORAD)



← Around 30 mm

← Around 40-45 mm

## FastGene PAGE Protein System



← Around 30 mm

← Around 40-45 mm

Comparing the BIORAD and FastGene chambers, there was no significant difference in electrophoretic speed and band distortion.

## Verification II

### Ease of hand-made Gel by FastGene PAGE Protein System

#### 【Method】

Four gels were prepared using the TGX FastCast Acrylamide Solution Kit and electrophoresed on the FastGene PAGE Protein System. Each item was evaluated.

#### 【Conditions】

Gel: 10%×4 sheet

Buffer: 25 mM Tris, 192 mM glycine, 0.1% SDS

Voltage: 200V

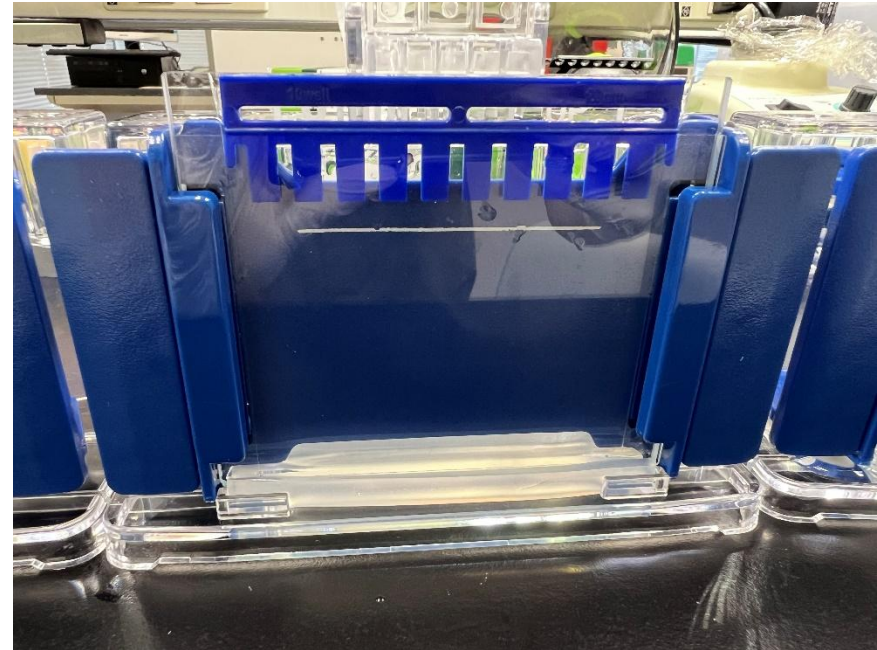
Time: 40 minutes

Ladder: BLUE Star PLUS Prestained Protein-Ladder 5  $\mu$ L

#### 【Evaluation item】

- Ease of assembly
- Gel leakage
- Band distortion
- Electrophoretic speed

# Ease of assembly and Gel leakage

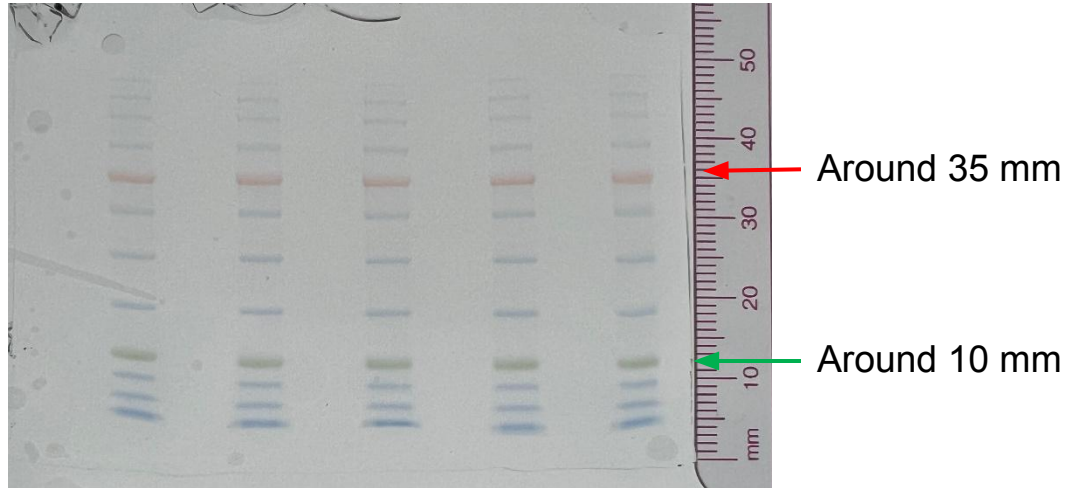


- Easy assembly for gel preparation
- The gel casting clip had a line indicating the amount of resolving gel to be injected. It was convenient.
- No gel leakage was observed

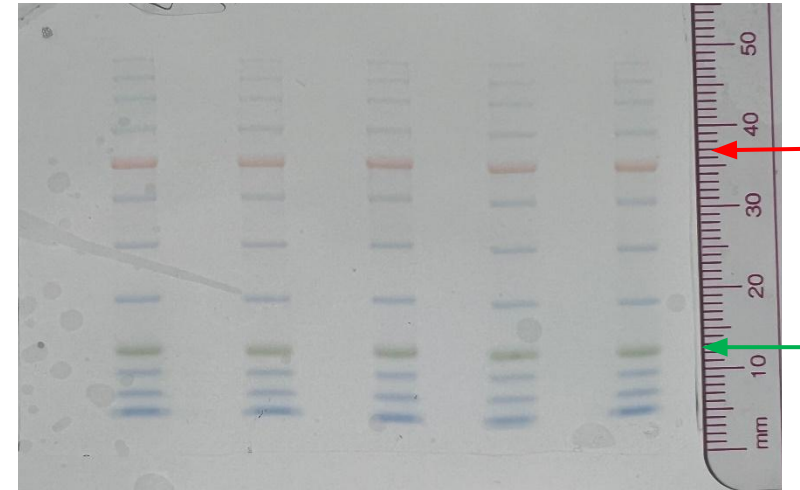


# Electrophoretic speed and Band distortion

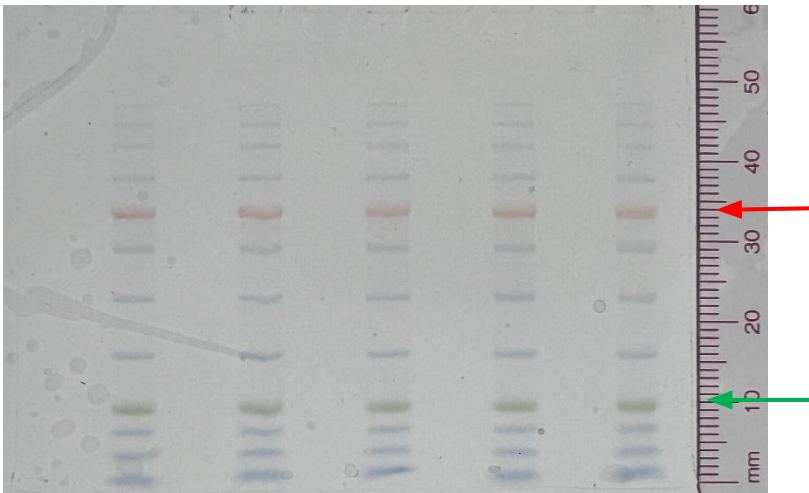
①



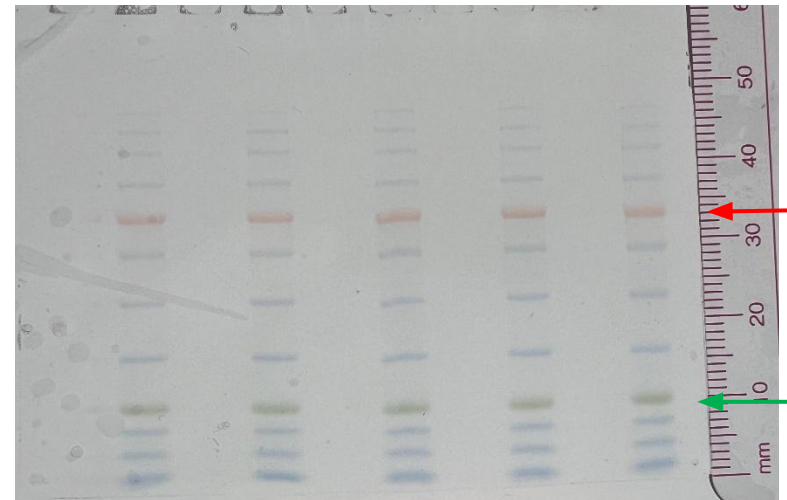
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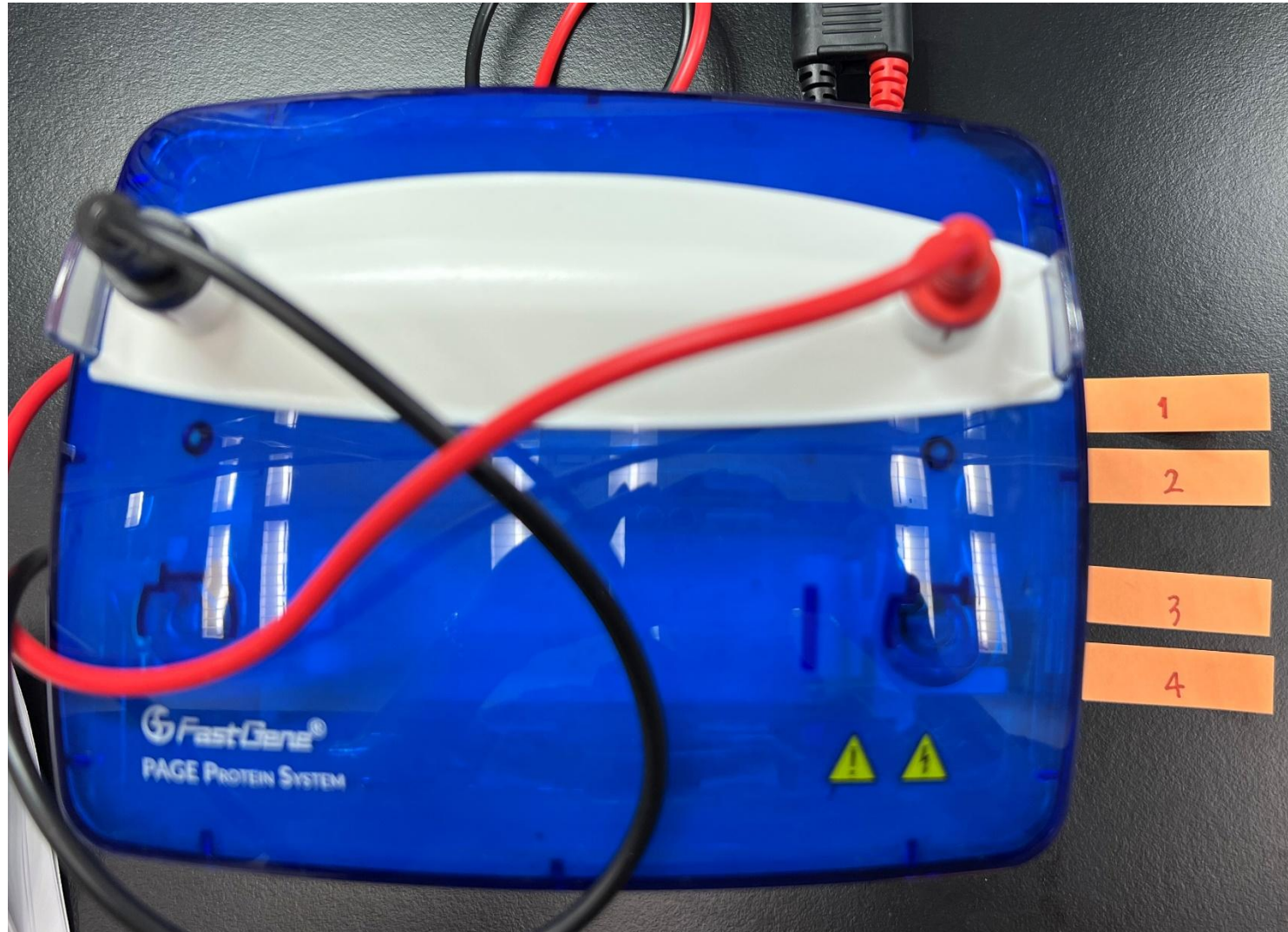
③



④



There was no significant difference in electrophoretic speed and band distortion between the four gels



# Conclusion

FastGene PAGE Protein System has comparable operability and performance compared to Mini-PROTEAN Tetra Vertical Electrophoresis Cells (BIORAD)

**Think different,  
Behave sincerely but unique,  
Be the only one**

