

Ordering Information

GelMaster46 Gel Casting System

CAT. NO.	DESCRIPTION
GM101	GelMaster46 Gel Casting System
EWCO1	GelMaster46 with Extended Warranty (1 year)
EWCO2	GelMaster46 with Extended Warranty (2 years)

Reagents

CAT. NO.	DESCRIPTION
GRF2501	GelMaster Tris-Glycine Gel Kit
MS8131	Tris/Glycine/SDS Buffer Instant Granules, 10 sticks
GRF2508	Tris-Glycine Gel Storage Buffer
GRF2601	GelMaster Tris-Acetate Gel Kit
GRF2701	GelMaster Tris-Tricine Gel Kit
MS8136	Tricine SDS Running Buffer Instant Granules, 10 sticks

Consumables

PRODUCT NAME	CAT. NO.	SPECIFICATION
Mini Casting Module	MINICGKA	1.0 mm
	MINICGKB	1.5 mm
Mini Vertical Electrophoresis System	MINI2075	2-gel, 0.75 mm
	MINI2100	2-gel, 1.0 mm
	MINI2150	2-gel, 1.5 mm
	MINI4075	4-gel, 0.75 mm
	MINI4100	4-gel, 1.0 mm
	MINI4150	4-gel, 1.5 mm

Specifications

Feature	Specification
Dimensions (W x D x H)	330 x 350 x 320 mm (13.0 x 13.8 x 12.6 in)
Weight	15 kg (33.1 lbs)
Power Supply	100-240 V AC, 50/60 Hz
Gel Casting Time	≤ 1.5 min per gel
Gel Percentage Range	0%-20%
Gel Thickness	0.75 mm, 1.00 mm, 1.50 mm
Gel Types	Homogeneous Gel, Gradient Gel, Step Gradient Gel
Number of Gradient Layers	≤ 7 layers
Dispensing Accuracy	CV ≤ 5%
Operating Temperature	4-30 °C

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GelMaster46

Gel Casting System

Fast, Flexible, High-Stability

Designed for reliable and consistent gel preparation in modern protein laboratories



The **GelMaster46 Gel Casting System** delivers fast, reproducible PAGE gel preparation for protein electrophoresis applications. Designed for high-throughput research environments, it minimizes variability associated with manual casting while saving time through automated reagent pre-dispensing and solution delivery.



Ultra-Fast Gel Casting

Cast a PAGE gel in as little as 46 seconds *. Estimated saving time is **9 hours/100 gels**.

Step	Hand Casting (Traditional)		Hand Casting (Gel Kit, YamayBio)		GelMaster46 System (Gel kit, YamayBio)	
	1.0 mm	1.5 mm	1.0 mm	1.5 mm	1.0 mm	1.5 mm
Modules Preparation (min)	3.5	3.5	3.5	3.5	3.5	3.5
Reagents Preparation (min)	13.2	19.2	6.4	8.8	N/A	N/A
Casting (min)	18	24	7	12.7	8	9
Liquid Seal Waiting Time (min)	30	30	N/A	N/A	N/A	N/A
Total Hands-On Time (min)	34.7	46.7	16.9	25	11.5	12.5
Total Protocol Time ** (min)	64.7	76.7	16.9	25	11.5	12.5
Time Saved	—	—	73.9%	67.4%	82.2%	83.7%

Table 1: Total Protocol Time Comparison (10 Gels)

*0.75 mm thickness, excluding polymerization time.
**Total Protocol Time includes all hands-on steps plus any required incubation or waiting periods. The GelMaster46 system's precision eliminates the need for a manual liquid seal, allowing you to walk away immediately after casting.



Affordable High-Throughput Workflow

At approximately \$2.00 per gel compared to using the system's dedicated reagent kit, this system offers significant long-term savings compared to using precast gels.



Customizable Gel Formats

- Adjustable gel percentage, thickness, and casting quality (see Fig 1).
- Supports homogeneous gels, gradient gels, and step gradient gels.
- Compatible with industry-standard gel cassettes from various brands.

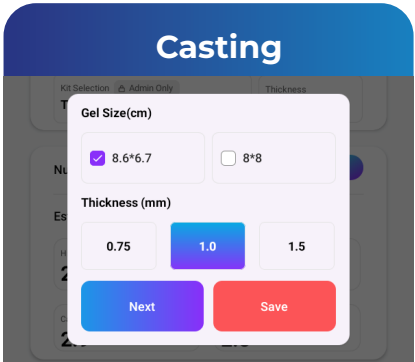
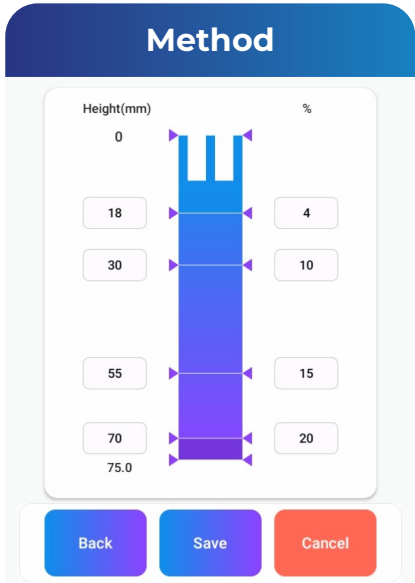
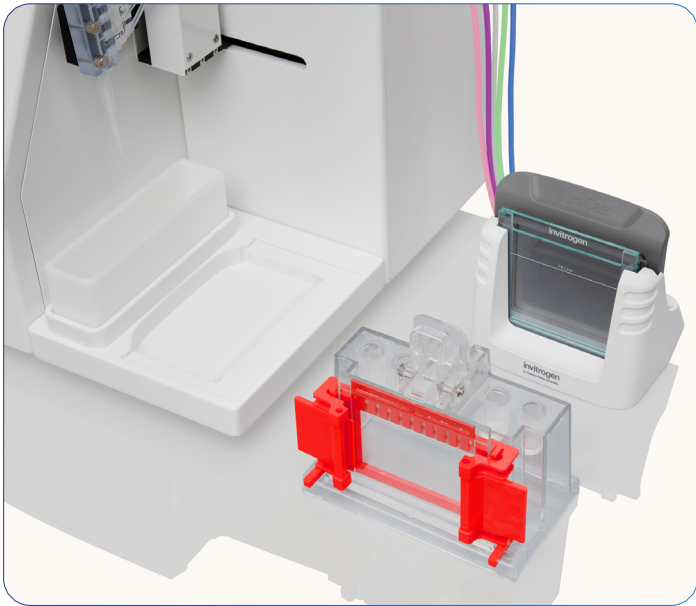


Figure 1: Settings Interface



Higher Casting Stability

- Precise reagent delivery ensures a uniform gel matrix, delivering excellent band resolution & highly reproducible Western Blot results.
- Four consecutive 4-20% gradient gels were prepared using the GelCast System and run in Tris-Glycine-SDS buffer at 160 V for 60min. Prestained protein marker migration RSD: ≤ 0.05

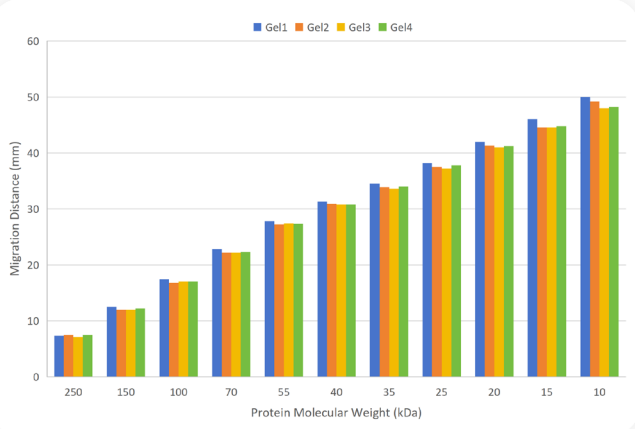


Figure 2: Protein Marker Migration Distance in 4 Gels



Easy-To-Use Interface

An intuitive touchscreen interface provides guided operation, allowing fast setup with minimal user training (see Fig 3).



Safe and Non-Toxic Reagents

Formulated without hazardous components, such as neurotoxic acrylamide dust, ensuring safe handling and reduced environmental impact.



Safe Handling



Non-Toxic Formulation



Eco-Conscious Design

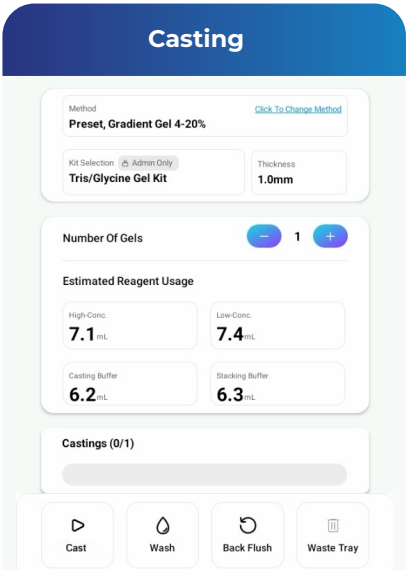


Figure 3: Casting Screen