Product Name: AllView PAGE Buffer (20×) / DynaMarker Protein MultiColor Stable II Set

Code No: DS522

Components

	AllView PAGE Buffer (20×) (See page 2)	DynaMarker Protein MulitColor Stable II (See page 5)
Code No	DS520S	DM660S
Lot#	*******	*******
Size	50 mL (20x stock solution)	100 µL
Storage	Room temperature* (Protect from light)	4°C
Stability	2 years at RT	12 months at 4°C

*The storage condition of AllView PAGE Buffer (20×) (DS520S) is room temperature. Please transfer AllView PAGE Buffer (20×) to room temperature after receiving this set.

AllView PAGE Buffer (20×)

Description

AllView PAGE Buffer (20×) is a new type of running buffer for SDS-PAGE electrophoresis. This buffer has a remarkable feature that enable us to separate proteins with wide range of molecular weights in the basic Laemmli gel (Tris-HCl) similar to using “gradient gel”. The recommended acrylamide concentration is 6% for resolving gel and 3% for stacking gel to separate the entire range of about 10 kDa to 250 kDa. After electrophoresis, the polyacrylamide gel can be used directly for CBB staining, silver staining or western blotting.

Protocol

1. Dilute the AllView PAGE Buffer (20×) 20 times with ultrapure water.
   (e.g. Add 25 ml of AllView PAGE Buffer (20×) to 475 ml of ultrapure water.)
2. Set the gel in electrophoresis chambers.
3. Fill the chambers with the 1 × AllView PAGE Buffer.
4. Load your samples and molecular weight markers.
5. Start electrophoresis.

Gel	Voltage	Time
Mini gel (8 × 10 cm, 1 mm thick)	250 V (Constant voltage)	15 min

Note:

- AllView PAGE Buffer (20×) is suitable for Laemmli gels (see below “Recommended usage”).
- If precast gels are used, the optimal acrylamide concentration may be different.
- AllView PAGE Buffer (20×) is not reusable.
- AllView PAGE Buffer (20×) is 20 × stock solution. Please dilute to 1 × solution before use.
- If precipitation of SDS is observed, completely dissolve it in a water bath (about 37°C) before use.
- Optimal electrophoretic time is depending on acrylamide concentration, gel size and voltage. Accordingly, it is recommended to monitor electrophoresis using a prestained MW Marker (e.g. DynaMarker Protein MultiColor Stable II, Code#DM660).
- Sometimes the gel become too hot during electrophoresis with two gels at the same time or with a large size gel. To avoid heat generation, use the chilled 1 × AllView PAGE Buffer and electrophorese in a cold room.

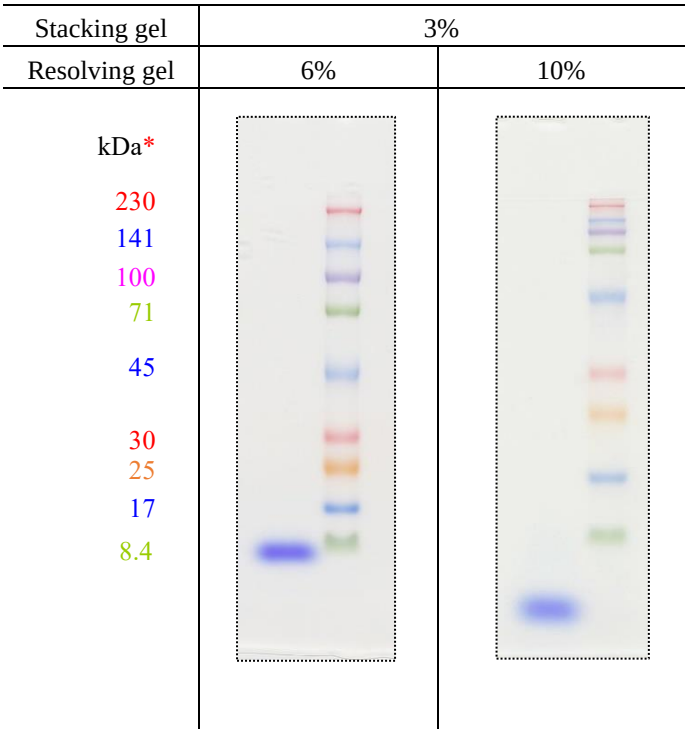
Recommended usage

The recommended acrylamide concentration is 6% for resolving gel and 3% for stacking gel to separate the entire range of about 10 kDa to 250 kDa. Especially if the separation of low molecular weight proteins (10 kDa~30 kDa) is required, 10% resolving gel is recommended.

1. Gel preparation (Laemmli's method)

Table 1. Recipes for polyacrylamide resolving and stacking gel (2 mini gels)

	Stacking gel (6 ml)	Resolving gel (15 ml)	
Gel percentage	3%	6%	10%
Ultrapure water	3.9 ml	8.05	6.05
1.5M Tris-HCl (pH8.8)		3.75	3.75
0.5M Tris-HCl (pH6.8)	1.5		
30% Acrylamide/Bis solution	0.6	3.0	5.0
10% SDS	0.06	0.15	0.15
TEMED	0.003 (3 µl)	0.00375 (3.75 µl)	0.00375(3.75 µl)
10% APS	0.06	0.05	0.05

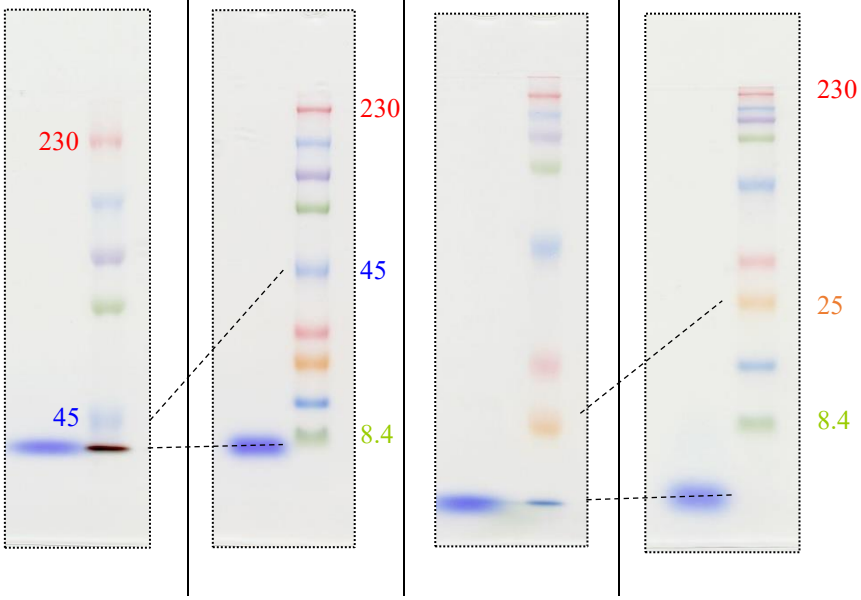


* DynaMarker Protein MultiColor Stable II, Code#DM660

2. Electrophoretic image

The mobility of proteins using AllView PAGE Buffer (20×) is different from Laemmli electrophoresis running buffer (Tris-Glycine-SDS). By using AllView PAGE Buffer (20×) and the Laemmli gels (Tris-HCl), a wide range of protein sizes can be separated like a gradient gel.

Stacking gel	3%			
Resolving gel	6%		10%	
Buffer	Tris-Glycine-SDS buffer	AllView PAGE Buffer (20×)	Tris-Glycine-SDS buffer	AllView PAGE Buffer (20×)

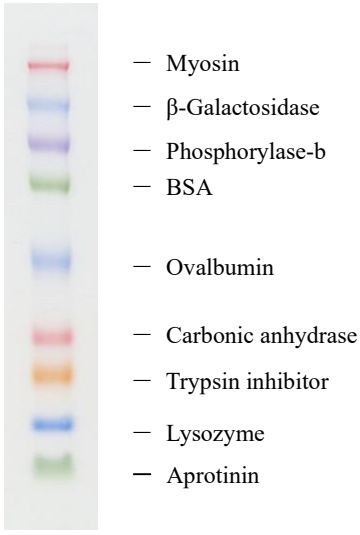


* DynaMarker Protein MultiColor Stable II, Code#DM660

DynaMarker Protein MultiColor Stable II

Description

The DynaMarker Protein MultiColor Stable II is a pre-stained protein molecular weight marker. The marker has a remarkable feature that it is possible to store at 4 °C. The feature allow us to start electrophoresis with the marker, because it is always in a liquid state while stored at 4 °C. The DynaMarker Protein MultiColor Stable II consists of nine prestained proteins. Each of them are stained red, blue, purple, green or orange, ranging in apparent molecular weight from approximately 8 kDa to 230 kDa. The DynaMarker Protein MultiColor Stable II is suitable for visualizing proteins during electrophoresis without staining and for monitoring electrophoretic transfer onto membranes. The protein concentrations are optimized to give uniform band intensities. The marker is supplied in gel loading buffer for direct loading onto SDS-PAGE without heating or adding reducing agents.



Electrophoresis profile of DynaMarker Protein MultiColor Stable II (10 µl) on 6% polyacrylamide (5% C) Gel / AllView PAGE Buffer (20×) (Code#DS520) as running buffer.

Protocol

1. Take the marker out of refrigerator.
2. Load 10 µl for mini-gels or more for large size gels.
3. Load your samples.
4. Start electrophoresis.

Note: There is no need to heat or add reducing agents.

Contents

Protein	Apparent molecular weight (kDa) *	
	Tris-Glycine-SDS buffer (Laemmli running buffer)	AllView PAGE Buffer (20×) (Code#DS520)
Myosin	249	250
β-Galactosidase	137	141
Phosphorylase-b	96	100
BSA	73	71
Ovalbumin	46	45
Carbonic anhydrase	31	30
Soybean trypsin inhibitor	26	25
Lysozyme	18	17
Aprotinin	6.3	8.4

Apparent molecular weights are lot specific. Please refer to the attached document to each DynaMarker Protein MultiColor Stable II for these exact molecular weights.

Note: As covalently bound dye affects protein mobility, each batch of prestained protein marker is calibrated against unstained standards. A prestained protein marker should be used for approximate molecular weight determination. For precise molecular weight determination use an unstained molecular weight marker.

* **:** The apparent molecular weight values are lot specific and depends on the electrophoresis running buffer.