

# **Product Information**

ExcelBand™ series

3-color Pre-Stained Protein Ladder, Broad Range (3.5-245 kDa)

PM5200

Size:  $250 \mu l \times 2$ 

5 μl per well for 100 applications

# Storage

4°C for 3 months

-20°C for long term storage

# **Loading Volume**

- 3 µl or 5 µl per loading for clear visualization during electrophoresis on a 15-well or 10-well mini-gel.
- 1.5~2.5 μl per well for general Western blotting transfer.
- Apply more for a thicker (> 1.5 mm) or larger gel.

# Description

The ExcelBand™ 3-color Pre-Stained Protein Ladder, Broad Range (PM5200) is a ready to use three-color protein standard with 15 pre-stained proteins covering a wide range of molecular weights from 5 to 245 kDa in Tris-Glycine buffer (3.5 to 235 kDa in Bis-Tris (MOPS) buffer and Bis-Tris (MES) buffer). Proteins are covalently coupled with different chromophores for easy identification of bands, with three reference proteins carrying enhanced intensity corresponding to a blue band at 20 kDa, green at 40 kDa, and red at 75 kDa, respectively, as separated on SDS-PAGE (Tris-Glycine buffer).

The ExcelBand™ 3-color Pre-Stained Protein Ladder, Broad Range (PM5200) is designed for monitoring protein separation during SDS-polyacrylamide gel electrophoresis, verification of Western transfer efficiency on membranes (PVDF, nylon, or nitrocellulose), and for approximating protein size.

The ladder is supplied in gel loading buffer and is ready to use. **Do NOT heat, dilute, or add reducing agents before loading.** 

#### Contents

Approximately  $0.1^{\circ}0.4$  mg/ml of each protein in the buffer (20 mM Tris-phosphate (pH 7.5 at 25°C), 2 % SDS, 0.2 mM Dithiothreitol, 3.6 M Urea, and 15 % (v/v) Glycerol).

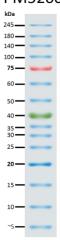
# **Guide for Molecular Weight Estimation**

Migration patterns and approximate MWs (kDa) of ExcelBand™ 3-color Pre-Stained Protein Ladder, Broad Range (PM5200) in different electrophoresis conditions are listed below:

Band	Color	TRIS- GLYCINE	BIS-TRIS (MOPS)	BIS-TRIS (MES)	
1	Blue	245	235	235	
2	Blue	180	170	170	
3	Blue	140	130	130	
4	Blue	100	93	93	
5	Red	75	70	72	
6	Blue	60	53	53	-
7	Blue	50	43	44	
8	Green	40	34	36	
9	Blue	35	30	30	
10	Blue	30	26	26	
11	Blue	25	22	23	-
12	Blue	20	18	18	
13	Blue	15	14	14	
14	Blue	10	9	10	
15	Blue	~5	~3.5	~3.5	



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**Note.** The apparent molecular weight (kDa) of each protein has been determined by calibration against an unstained protein standard; supplemental data should be considered for more accurate adjustments in different electrophoresis conditions.

# **Quality Control**

Under suggested conditions, PM5200 ExcelBand™ 3-color Pre-Stained Protein Ladder, Broad Range resolves 15 major bands in SDS-PAGE (Tris-Glycine, MOPS, and MES buffer) and after Western blotting transfer to a nitrocellulose membrane.

### Other information

SMOBIO Technology, Inc. claims all warranties with respect to this document, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. In no event shall SMOBIO Technology, Inc. be liable, whether in contract, tort, warranty, or under any statute or any other basis for special, incidental, indirect, punitive, multiple or consequential damages in connection with or arising from this document, including but not limited to the use thereof.

Caution: Not intended for human or animal diagnostic or therapeutic uses.

# **Related Products**

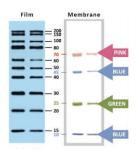
PM1500	ExcelBand All Blue Regular Range Protein Marker, 250 µl × 2
PM1600	ExcelBand All Blue Regular Range Plus Protein Marker, 250 µl × 2
PM1700	ExcelBand All Blue Broad Range Protein Marker, 250 µl × 2
PM2500	ExcelBand 3-color Regular Range Protein Marker, 250 $\mu$ l $\times$ 2
PM2600	· · · · · · · · · · · · · · · · · · ·
PM2610	ExcelBand Enhanced 3-color High Range Protein Marker, 250 µl × 2
PM2700	·
PM2800	
PM5000	, .
PM5100	, , ,
PS1000	FluoroStain Protein Fluorescent Staining  Dye (Red, 1,000X), 1 ml
DM1100 DM2200	

DM3100 ExcelBand 1 KB (0.25-10 kb) DNA Ladder,  $500\,\mu l$ 

DM5100 ExcelBand Super Range DNA Ladder, (50 bp- 25 kb), 500  $\mu$ l

VE0100 B-BOX™ Blue Light LED epi-illuminator, AC 100-240V, 50/60Hz

WM1000 YesBlot Western Marker I, 250 µl



YesBlot™ Western Marker I

The latest version of the manual can be downloaded from www.smobio.com/shop.

For research use only 2023 ver. 2.4.1