

## Products for Electrophoresis

Catalog #	Description
1610373	Precision Plus Protein All Blue Standards, 500 $\mu$ l
1610374	Precision Plus Protein Dual Color Standards, 500 $\mu$ l
1610737	Laemmli Sample Buffer, 30 ml
1610786	Bio-Safe™ Coomassie Stain, 1 L

## Products for Blot Detection

Catalog #	Description
1610380	Precision Protein StrepTactin-HRP Conjugate, 0.3 ml, 150 applications
1610382	Precision Protein StrepTactin-AP Conjugate, 0.3 ml, 150 applications
1705012	Immun-Star™ AP Substrate Pack

Precision Plus Protein Standards are sold under license from Life Technologies Corporation, Carlsbad, CA, for use only by the buyer of the product. The buyer is not authorized to sell or resell this product or its components.

**BIO-RAD**

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16-0662 0616

# Instruction Manual

## Precision Plus Protein™ Standards

### Unstained

#### Single Unit

Catalog #1610363 (1 ml)

Catalog #12002084 (100  $\mu$ l)

#### 5-Pack

Catalog #1610396

Product shipped at room temperature.

Store at  $-20^{\circ}\text{C}$  upon arrival.

**BIO-RAD**

Precision Plus Protein Standards are the latest generation of recombinant proteins designed to provide a ladder of convenient, consistent sizes. These standards continue the tradition of accuracy and ease of use begun by Precision Protein™ Standards while also providing instant orientation, even greater accuracy, particularly in the 10–25 kD range, and two-color convenience (catalog #1610374 only). All Precision Plus Protein Standards contain three reference bands (the 25 kD, 50 kD, and 75 kD bands are three times as intense as the other bands). These standards are available in unstained, all blue unstained, and dual color prestained formulations.



Representative lot of Precision Plus Protein Unstained Standards on a 4–20% Criterion™ Tris-HCl Gel

## Product Description

Precision Plus Protein Unstained Standards contain ten recombinant protein bands of 10 kD, 15 kD, 20 kD, 25 kD, 37 kD, 50 kD, 75 kD, 100 kD, 150 kD, and 250 kD. The 25 kD, 50 kD, and 75 kD bands are three times the intensity of the other bands and serve as reference markers.

The molecular weights of the Precision Plus Protein Unstained Standards are confirmed by sequencing, mass spectrometry, and migration in a Laemmli SDS-PAGE system.

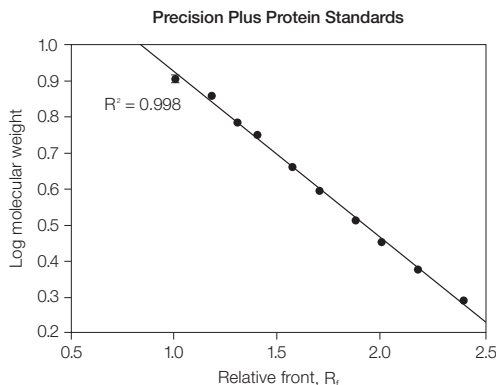
Precision Plus Protein Unstained Standards contain an integral *Strep*-tag sequence, enabling parallel detection on western blots using Precision Protein™ StrepTactin-HRP Conjugate (catalog #1610380) or Precision Protein StrepTactin-AP Conjugate (catalog #1610382).

## Instructions for Use

Precision Plus Protein Unstained Standards are provided in loading buffer, ready to load, with no dilution required for most applications. Allow the tube to reach room temperature and thoroughly mix before use. This will ensure that any solids that may have precipitated at  $-20^{\circ}\text{C}$  have returned to solution. Do not heat the product above room temperature.

## Specifications

Catalog #	1610363
Volume	1 ml
Number of applications	100
Protein quantity	50 kD band, 750 ng; 20 kD and 100 kD bands, 150 ng each*
	* These values should be used only to determine a rough approximation of quantity of a protein of interest.
Loading buffer	30% (w/v) glycerol, 2% SDS, 62.5 mM Tris, pH 6.8, 50 mM DTT, 5 mM EDTA, 0.02% $\text{NaN}_3$ , 0.01% bromophenol blue
Shelf life	1 year at $-20^{\circ}\text{C}$



The curve generated by plotting the relative mobility ( $R_f$ ) vs. the log of the molecular weight can be used to determine the molecular weight of unknown proteins.

## Recommended Loading Volumes for Mini Format Gel Systems

Load Volume	PAGE Application
10 $\mu\text{l}$	Coomassie Brilliant Blue G-250 or R-250 staining
1–3 $\mu\text{l}$	Silver staining; SYPRO Ruby staining
1–4 $\mu\text{l}$	Blotting: Colorimetric AP development
1–6 $\mu\text{l}$	Blotting: Colorimetric HRP development
5–10 $\mu\text{l}$	Blotting: Chemiluminescent AP development*
5–10 $\mu\text{l}$	Blotting: Chemiluminescent HRP development**

\* Dilute Precision Plus Protein Standards 1:15–1:30 in Laemmli buffer prior to use.

\*\* Dilute Precision Plus Protein Standards 1:30–1:60 in Laemmli buffer prior to use.

StrepTactin is covered by German patent application P 19641876.3. Bio-Rad Laboratories, Inc. is licensed by Institut für Bioanalytik GmbH to sell these products for research use only. *Strep*-tag technology for western blot detection is covered by US patent 5,506,121 and by UK patent 2,272,698. SYPRO is a trademark of Life Technologies Corporation.