

PeppermintStick™ Phosphoprotein Molecular Weight Standards

P27167 PeppermintStick™ phosphoprotein molecular weight standards, 40 µL

P33350 PeppermintStick™ phosphoprotein molecular weight standards, 400 µL

Quick Facts

Storage upon receipt:

- ≤−20°C (long term)
- 2–6°C (short term)

Concentration: Each protein ~0.5 µg/µL

Introduction

PeppermintStick™ phosphoprotein molecular weight standards are a mixture of phosphorylated and nonphosphorylated proteins ranging from 14,400 to 116,250 daltons molecular weight. Separation by polyacrylamide gel electrophoresis resolves the standard mixture into two phosphorylated and four nonphosphorylated protein bands (Figure 1). Thus, these standards serve both as molecular weight markers and as positive and negative controls for methods that detect phosphorylated proteins, such as the methods provided by our Pro-Q® Diamond phosphoprotein gel stains (see *Product List*, below).

Materials

Contents

PeppermintStick phosphoprotein molecular weight standards are sold in a unit sizes of 40 µL, sufficient volume for 20–40 gel

Table 1. Characteristics of proteins included in the PeppermintStick phosphoprotein molecular weight standards.

Protein	Molecular Weight	Phosphoprotein?
β-Galactosidase *	116,250	no
Bovine serum albumin †	66,200	no
Ovalbumin ‡	45,000	yes
β-Casein §	23,600	yes
Avidin ‡	18,000	no
Lysozyme ‡	14,400	no

* From *E. coli*. † From bovine serum. ‡ From chicken egg. § from bovine milk.

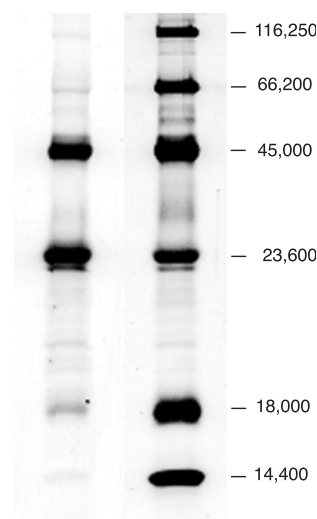


Figure 1. Phosphorylated and nonphosphorylated proteins in PeppermintStick phosphoprotein molecular weight standards. The standards (~0.5 µg of protein in each band) were electrophoresed on a 13% polyacrylamide gel. The gel was stained with Pro-Q Diamond phosphoprotein gel stain (left lane) followed by SYPRO® Ruby protein gel stain (right lane). The identities and phosphorylation state of the proteins can be found in Table 1.

lanes, or 400 µL, sufficient volume for 200–400 gel lanes. Each protein is present at ~0.5 µg/µL. The proteins are provided in a storage solution that contains 10 mM Tris, pH 7.5, 300 mM NaCl, 100 mM dithiothreitol, 2 mM EDTA, 3 mM sodium azide and 50% glycerol.

Storage

For long-term storage, store the standards at ≤−20°C to prevent microbial contamination. For short-term storage, the standards may be stored at 2–6°C, for convenience.

Application

For 8 cm × 10 cm gels, mix 1 µL of the protein standards with 6 µL of SDS gel-loading buffer, heat at 95°C for 4 minutes and pipet into the well reserved for the standard. For larger gels, use proportionally more of the standards. See Figure 1 for the staining pattern of the standard proteins and Table 1 for their molecular weights.

Product List *Current prices may be obtained from our Web site or from our Customer Service Department.*

Cat #	Product Name	Unit Size
P27167	PeppermintStick™ phosphoprotein molecular weight standards	40 µL
P33350	PeppermintStick™ phosphoprotein molecular weight standards *200 gel lanes*	400 µL

Contact Information

Further information on Molecular Probes' products, including product bibliographies, is available from your local distributor or directly from Molecular Probes. Customers in Europe, Africa and the Middle East should contact our office in Leiden, the Netherlands. All others should contact our Technical Assistance Department in Eugene, Oregon.

Please visit our Web site — www.probes.com — for the most up-to-date information.

Molecular Probes, Inc.

29851 Willow Creek Road, Eugene, OR 97402
Phone: (541) 465-8300 • Fax: (541) 335-0504

Customer Service: 6:00 am to 4:30 pm (Pacific Time)
Phone: (541) 335-0338 • Fax: (541) 335-0305 • order@probes.com

Toll-Free Ordering for USA and Canada:
Order Phone: (800) 438-2209 • Order Fax: (800) 438-0228

Technical Assistance: 8:00 am to 4:00 pm (Pacific Time)
Phone: (541) 335-0353 • Toll-Free (800) 438-2209
Fax: (541) 335-0238 • tech@probes.com

Molecular Probes Europe BV

Poortgebouw, Rijnsburgerweg 10
2333 AA Leiden, The Netherlands
Phone: +31-71-5233378 • Fax: +31-71-5233419

Customer Service: 9:00 to 16:30 (Central European Time)
Phone: +31-71-5236850 • Fax: +31-71-5233419
eurorder@probes.nl

Technical Assistance: 9:00 to 16:30 (Central European Time)
Phone: +31-71-5233431 • Fax: +31-71-5241883
eurotech@probes.nl

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