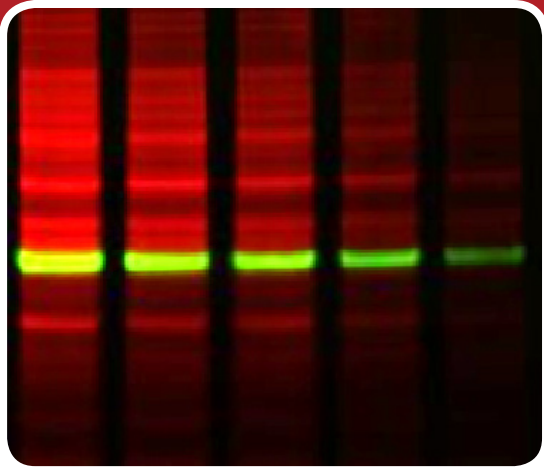


Protein Gel Prestains

VersaBlot™ Protein Normalization Kits



Features

- **Superior linearity** for western blot normalization compared to housekeeping proteins
- **Reversible staining** for downstream multicolor western blotting
- **Highly sensitive** protein quantitation down to ~1 ng protein on PAGE gels or western membranes
- **Simple protocol** for labeling of purified proteins or cell lysates with no purification
- **Choice** of 2 bright near-IR dyes CF®680T and CF®770T
- **Compatible** with Typhoon™ and Odyssey® imagers

Pre-label proteins or cell lysates with near-IR dyes before SDS-PAGE for highly linear protein quantitation in-gel or on western blot membranes

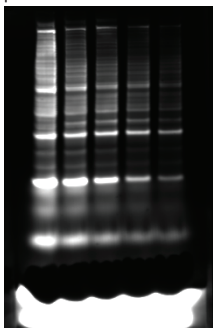
VersaBlot™ Total Protein Normalization Kits allow simple and reversible labeling of purified proteins or cell lysates with near-infrared CF® dyes. To label a protein sample, simply mix the dye and buffer into your protein solution, wait 30 minutes, and then separate the labeled protein sample by SDS-PAGE. After electrophoresis, the bands can be visualized using a fluorescent gel scanner, eliminating the need for gel staining. Labeled proteins on SDS-PAGE gels also can be transferred to membranes and detected by western blotting. No purification is needed after labeling, because the excess CF® dye runs to the bottom of the gel and does not interfere with protein imaging. After protein transfer, the excess dye will be washed off the membrane, leaving only the labeled proteins.

In-Gel Detection: Detection of low abundance proteins down to ~1 ng with negligible background. The dyes do not cause any visible change to the shape or mobility of the bands compared to unlabeled proteins visualized by post-staining methods.

Western Blotting: Outstanding linearity for quantitation of total protein over a wide dynamic range, outperforming the traditional normalization method based on housekeeping proteins. The prestaining does not affect protein detection by antibodies. If desired, reversal solution can be used to remove the staining from blotting membranes for multicolor fluorescent western blot analysis.

Superior linearity and wide dynamic range for western normalization compared to antibody labeling of housekeeping proteins

(A) CF®770 total protein prestained blot



(B) Blot after dye reversal



(C) WB signal after dye reversal



(D) Comparison of blot normalization methods

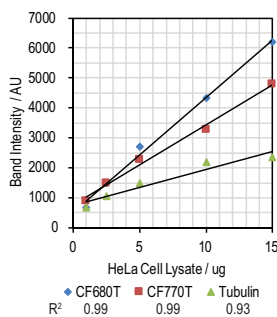


Figure 1. VersaBlot™ Total Protein Normalization Kits for WB normalization. (A) PVDF membrane detection of HeLa cell lysates in serial dilution with VersaBlot™ CF®770T kit. (B) Fluorescence following reversal protocol. (C) Tubulin detection via CF®770 conjugated secondary antibody after reversal. (D) Plots of band intensity vs. protein content for CF®680T and CF®770T labeled lysate compared to tubulin WB. The VersaBlot™ Total Protein Normalization Kits showed better linearity compared to the antibody labeling of housekeeping proteins.

Quick and easy staining method

- Simply mix purified protein or cell lysate with VersaBlot™ near-IR dye and buffer
- Samples ready in only 30 minutes! No other staining or destaining needed
- Simply run labeled samples on SDS-PAGE as usual
- Detect protein bands in-gel or transfer to membrane for western blot analysis
- Staining can be reversed for multicolor western blot detection

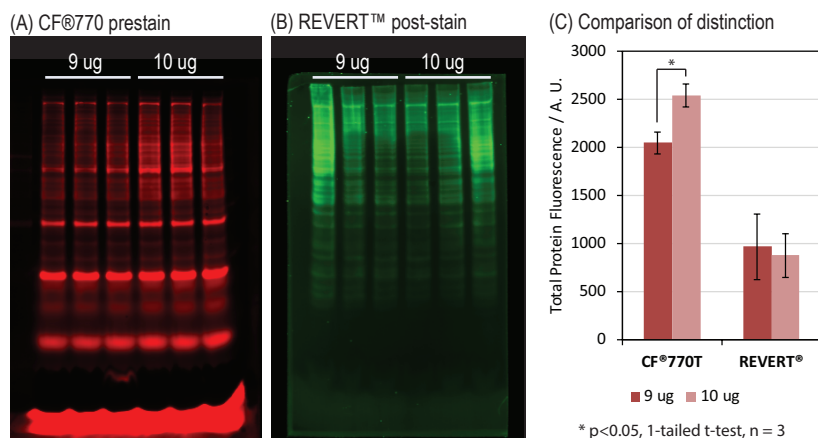


Figure 2. HeLa lysate was labeled with the VersaBlot™ CF@770T kit or left unlabeled. Lysates were loaded on SDS-PAGE gels at 9 ug or 10 ug total protein per lane and transferred to PDVF membranes. Proteins were imaged and quantitated using (A) VersaBlot™ CF@770T signal or (B) REVERT™ Total Protein Stain using an Odyssey® Infrared Imaging System. (C) CF@770T prestain demonstrated significant difference in signal while the REVERT™ kit was not able to distinguish samples with 10% difference in protein content.

Label with your choice of two bright and stable near-IR dyes

- CF@680T (Ex/Em 681/698 nm)
- CF@770T (Ex/Em 764/787 nm)

Compatible instruments

- Typhoon™ imagers (GE Healthcare)
- Odyssey® imagers (LI-COR® Biosciences)
- c500, c600, Sapphire Biomolecular Imager (Azure Biosystems)
- ChemiDoc™ MP (Bio-Rad)
- UVP ChemStudio (Analytik Jena)

VersaBlot™ Total Protein Normalization Kits

Cat. #	Product	Unit size
33025-T	VersaBlot™ CF@680T Total Protein Normalization Kit	100 labelings
33025		500 labelings
33026-T	VersaBlot™ CF@770T Total Protein Normalization Kit	100 labelings
33026		500 labelings

Other Western Blotting Reagents

Cat. #	Product	Unit size
23013-T	TrueBlack® WB Blocking Buffer Kit	10 membranes
22010	10X Fish Gelatin Blocking Agent	100 mL
22014	Bovine Serum Albumin 30% Solution	100 mL
21531-50uL	Peacock™ Plus Prestained Protein Marker	50 uL