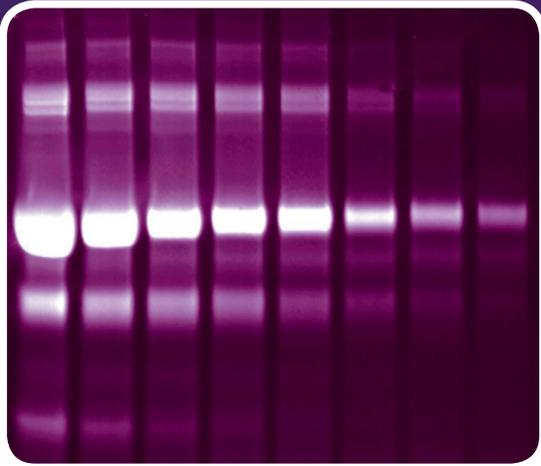


# Protein Gel Prestains

## Mix-n-Stain™ Total Protein Prestain Kits



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

Mix-n-Stain™ Total Protein Prestain Kits allow easy and fast 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.

For protein analysis in-gel, the kits allow detection of low abundance proteins down to 1 ng with minimal 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.

For western blotting, the kits demonstrate 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.

**Superior linearity for western normalization compared to antibody labeling of housekeeping proteins**

### Features

- Superior linearity for western blot normalization compared to housekeeping proteins
- Highly sensitive protein quantitation on PAGE gels or western membranes
- Label purified proteins or cell lysates rapidly and easily with no purification
- Detect as little as 1 ng protein
- Wide dynamic range
- Choice of 2 bright near-IR dyes (CF®680T and CF®770T)
- Compatible with imagers like Typhoon™ and Odyssey®

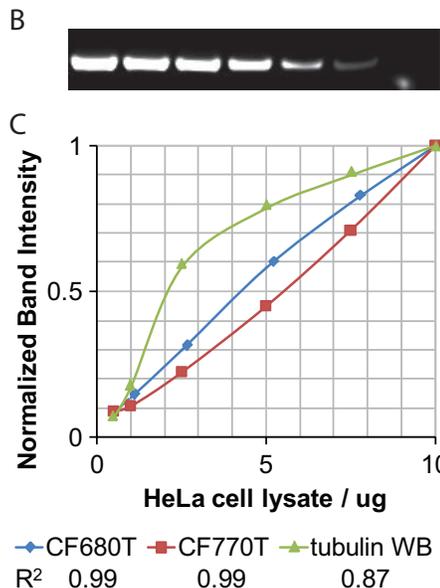
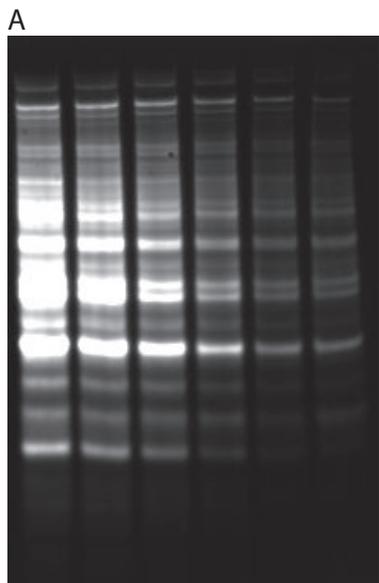


Figure 1. Mix-n-Stain™ Total Protein Prestaining Kits for western blot normalization. HeLa cell lysates in serial dilution are labeled with (A) the CF®770T total protein prestaining kit or (B) mouse anti-tubulin primary antibody and CF®770T goat anti-mouse secondary antibody, both on PVDF membranes. Total protein content in cell lysate was determined by the bicinchoninic acid assay (BCA). (C) Plots of band intensity vs protein content for CF®770T labeled lysate (shown in A), CF®680T labeled lysate (membrane not shown), and tubulin WB (shown in B). The Mix-n-Stain™ Total Protein Prestaining kits show better linearity compared to the antibody labeling of housekeeping proteins.

## Quick and easy staining method

- Simply mix purified protein or cell lysate with Mix-n-Stain™ NIR dye and buffer
- Incubate for only 30 minutes for the labeling reaction to take place
- Run the labeled samples on SDS-PAGE gel as usual
- No other staining or destaining needed
- Detect protein bands in-gel or transfer to membrane for western blot analysis

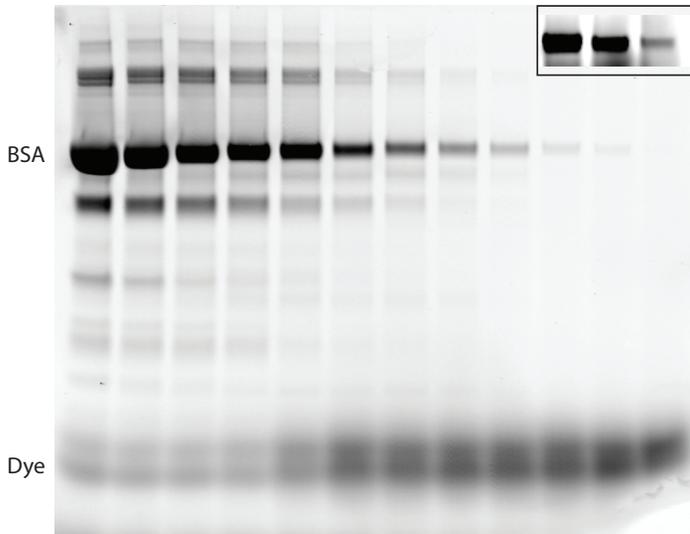


Figure 2. In-gel fluorescence image of bovine serum albumin (BSA) labeled with the Mix-n-Stain™ CF@680T Total Protein Prestaining Kit on SDS-PAGE gel. Protein content for each lane ranges from 10 ug to 1 ng, from left to right. The bands above and below the major bands are from impurity proteins in the BSA sample. The excess dye runs to the very bottom of the gel. Inset: part of the image with enhanced brightness to visualize the bands with 10, 5, and 1 ng of BSA.

### 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

- Amersham Typhoon™ imagers (GE Healthcare)
- Odyssey® imagers (LI-COR® Biosciences)
- c500, c600, Sapphire Biomolecular Imager (Azure Biosystems)
- ChemiDoc™ MP Imaging System (Bio-Rad)

## Ordering Information

Cat. #	Product name	Unit size
92400-T	Mix-n-Stain™ CF@680T Total Protein Prestain Kit	200 labelings
92400		1000 labelings
92401-T	Mix-n-Stain™ CF@770T Total Protein Prestain Kit	200 labelings
92401		1000 labelings