VersaBlot™ Total Protein Normalization Kits

Kits for reversible protein visualization and quantitation on protein gels and western blot membranes by labeling with near-infrared CF® dyes.

Product Description

VersaBlot™ Total Protein Normalization Kits are designed for sensitive, reversible, and accurate protein quantification on SDS-PAGE gels and western blot membranes. Note: these kits replace Mix-n-Stain™ Total Protein Prestain Kits.

VersaBlot™ Overview

VersaBlot™ Total Protein Normalization Kits are designed for rapid and sensitive protein detection on SDS-PAGE gels and western blot (WB) membranes. The proteins are covalently labeled with near-infrared CF® Dyes so that after electrophoresis, the bands can be immediately visualized by fluorescence detection without gel staining. The labeled proteins on SDS-PAGE gels can then be transferred to membranes for western normalization. If desired, the pre-stain can be reversed after scanning, allowing multi-color western using antibodies conjugated to near-infrared CF® Dyes in the same channel (see Protocol Overview below).

Sensitive and Accurate Western Normalization

For western blot normalization, the kits demonstrate outstanding linearity for quantification of total protein contents over a wide dynamic range (0.1 – 15 ug), outperforming the traditional normalization method of housekeeping proteins detected by western. Compared to total protein post-staining products like the Ponceau S and LI-COR® REVERT™, VersaBlot™ features a pre-staining protocol with superior signal-to-noise and sensitivity (able to detect 10% difference in protein content), with comparable reversibility and ease-of-use. The labeling and reversal procedures do not affect protein mobility or detection by antibodies (including phosphoprotein and glycoprotein detection).

Sensitive Detection on SDS-PAGE Gels

For SDS-PAGE gel pre-staining, the kits allow detection of low concentration 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.

Choose the Right Dye for Your Application

The VersaBlot™ Total Protein Normalization Kits enable multi-color protein detection on membranes, with or without reversal. CF®680T can be detected using the Typhoon™ (Cy®5 or IR Short filter) or on the Odyssey® in the 700 channel. CF®770T can be detected using the Typhoon™ IR Long filter or on the Odyssey® in the 800 channel.

It is important to maintain balanced signal intensity across all channels for multi-color imaging (i.e. not having one color dramatically brighter than others). If signal cross-talk is a concern, we recommend using the VersaBlot™ CF®770T Total Protein Normalization Kit.

See our fluorescent western blotting protocols.

Protocol Overview

Product attributes