

# REVERT™ Total Protein Stain



Make Western blot normalization more accurate and reliable with REVERT Total Protein Stain. This quick total protein normalization method detects all sample proteins after transfer from gel to membrane. The stain provides linear signal over a broad range of sample concentrations and is compatible with subsequent Western blot immunodetection methods.

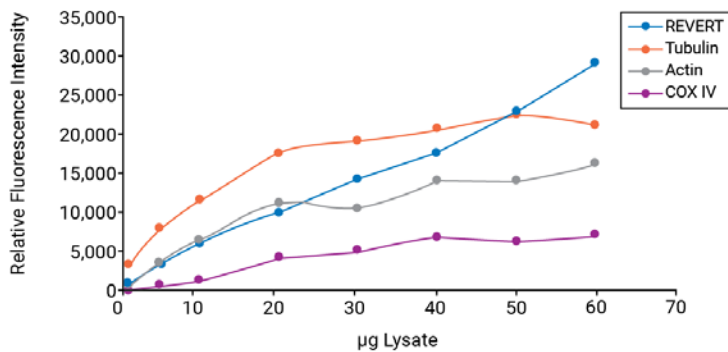
**Accurate Normalization.** With a wide linear range of 1-60 µg, it's easy to detect REVERT and your target in the same linear range for accurate normalization.

**Quick and Compatible.** Stain total protein in less than ten minutes on either PVDF or nitrocellulose membranes.

**Reliable Analysis.** Unlike housekeeping proteins, biological variation won't affect total protein normalization with REVERT.

## Accurate Normalization

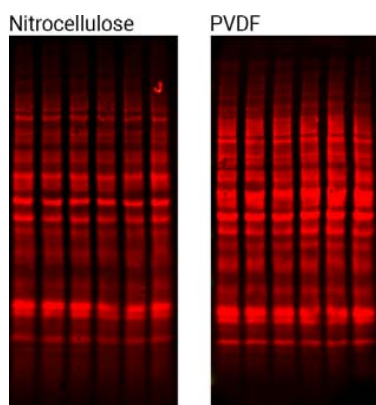
Use this stain to normalize accurately, by correcting for lane-to-lane variation in loading and transfer of target protein in your quantitative Western blots. REVERT Total Protein Stain provides a linear response over a wider range of cell lysate concentration than some commonly used housekeeping proteins (Figure 2).



**Figure 2. REVERT Total Protein Stain has a wider linear range than housekeeping proteins.** A linear response is required for quantitation. Above 20 µg of cell lysate, housekeeping proteins began to saturate and did not exhibit a linear signal response. REVERT remained linear from 1 to 60 µg of cell lysate. C32 cell lysate was separated in 4-12% Bis-Tris gels and transferred to nitrocellulose membrane. The relative fluorescence intensity is the average of triplicate values.

## Quick and Compatible

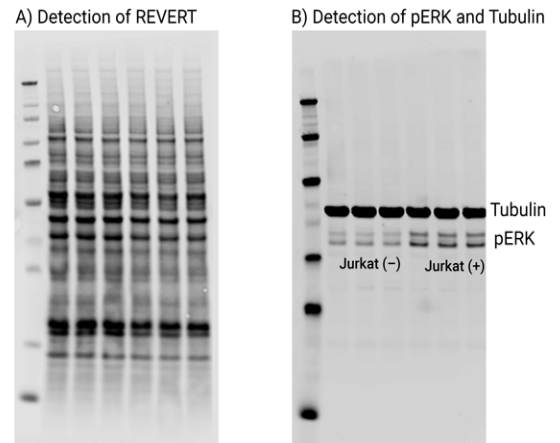
REVERT Total Protein Stain works with your existing Western blot workflow, without needing any additional reagents or special gels. Staining takes less than ten minutes and is compatible with both PVDF and nitrocellulose membranes (Figure 1).



**Figure 1. Rapid staining with REVERT Total Protein Stain.** REVERT Total Protein Stain provides highly efficient protein staining on nitrocellulose or Immobilon®-FL PVDF membranes in under 10 minutes. 10 µg of Jurkat cell lysate was loaded in each lane and separated in 4-12% NuPAGE Bis-Tris gels, transferred to nitrocellulose or PVDF membrane, and then imaged with the Odyssey® CLx Imaging System in the 700 nm channel.

## Reliable Analysis

Make quantitative analysis of your Western blot data easier and more reliable (Figure 3). Biological variation won't affect total protein normalization with REVERT. So while validation of stable expression levels is highly recommended for housekeeping proteins, REVERT is a consistent internal loading control that you don't need to validate.



**Figure 3. REVERT Total Protein Stain is a reliable, effective alternative to housekeeping proteins for Western blot normalization.** Jurkat cell lysate stimulated with TPA was used to detect an increase in pERK expression. (A) Target signals were normalized to REVERT Total Protein Stain, which was detected in the 700 nm channel of the Odyssey CLx imaging system. (B) Housekeeping protein normalization with tubulin, detected in the 800 nm channel. (C) Normalized results for REVERT and tubulin were similar for pERK detection.

### Product Ordering Information

The REVERT Total Protein Stain Kit can be used for 20 mini blots and contains:

- 1 x 100 mL REVERT Total Protein Stain
- 1 x 200 mL REVERT Wash Solution 1 x 200 mL
- REVERT Reversal Solution

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