

BioTechniques[®] In Focus

Western Blotting

Western Blotting has improved massively over the last 10 years

It's still a series of sequential steps but, like with many complex tasks, you can break it down into the **main 5 steps** and take advantage of major innovations such as **Stain-Free Technology**, rapid blotting with the **Trans-Blot Turbo system** and digital imaging with the **ChemiDoc Imaging systems** to get better data. Sample preparation

Electrophoresis

Transfei

Detection

Image analysis

There is a Stain in Stain-Free

But you don't need to do any tedious staining or de-staining of gels or blots. It's in the polymerized acrylamide in your gel. The proteins in your gel and on your blot are visualized directly to become indispensable checkpoints for success at these steps. There is no impact on electrophoresis, transfer or subsequent probing with detection antibodies.

The Total Protein Normalization Bonus

The Stain-Free blot image can also be used to measure the total protein present in each lane. This is then related to the signal from the protein of interest in the lane to give a true measure of change in expression. This guards against any errors from inconsistent gel-loading from wonky pipettes in the lab. TPN is considered by many prominent journals to be a more reliable loading control than using antibodies against house-keeping proteins in your samples.



What's required?

See The How and Why of Normalizing Your Western Blots via the QR code

Are your antibodies worthy of your blot?

Innovations like Stain-Free technology give you a great start in your western blotting. You know you have a blot that's worthy of the expensive antibody and detection reagents that you are about to lavish on it. BUT are your antibodies worthy of your blot? Many blots fall at the last hurdle because of poor quality primary antibodies. Take the time to validate your antibodies or buy antibodies that have already been well characterised such as PrecisionAb Antibodies.

There are years of western blot knowledge in one place and it's free!

For best practices, tips and tricks to guide you through the 5-steps or to troubleshoot any problems, check out the Western Blot Learning center



from Bio-Rad via the QR code!





Check bio-rad.com/promotions for western blotting special offers from Bio-Rad Laboratories.