

MUTLIBLOT™: Western Blotting Device For Simultaneous Detection Of Several Proteins Species From A Single Electrophoretic Gel

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Western blotting is a popular technique for examining expression levels of proteins using gel-based electrophoretic fractionation followed by blotting and antibody reactions. Since most analyses require the detection of multiple protein species, we developed an easy to use device that enables simultaneous detection of several proteins species from a single electrophoretic gel. The Western blotting procedure includes three critical steps: electrophoretic fractionation, blotting to a membrane, and antibody reactions. Although it has been well established for over 30 years, the procedure remains highly labor-and-resource intensive, using various chemical agents and solutions. Our device aims to dramatically improve the second of the three steps (blotting to a membrane). The device contributes to reduction in procedural time and sample amounts, as well as a removal of variations among multiple gels. The technique is so prominent that improving the cost and efficiency of such a widely used technique could have a significant impact on the time and costs of many projects, and such a project could prove to be an astute investment by the institute. A US patent for the technology is pending.