



ProfiBlot™ 48

Western blot analysis that is reliable, simple and on the dot

Tecan ProfiBlot 48

Designed to meet the IVD Directive 98/79/EC for Europe



Individual collection of toxic & biohazardous waste.

Western Blot analysis is used in many key applications in clinical diagnostics, such as screening and confirmation of different organisms causing infectious diseases (e.g. viruses or bacteria), and the identification of allergies. Additionally, the introduction of the IVD-Directive 98/79/EC for Europe is setting new standards for a wide range of tests and assays.

Built to improve safety and reliability in the laboratory and designed to meet the IVD-Directive 98/79/EC for Europe, the ProfiBlot 48 automates all key protocol steps for Western Blot processing, such as tedious wash- and incubation procedures.

Providing the highest possible user safety

ProfiBlot 48 is designed for highly effective standardization of Western Blot assays. In parallel, it minimizes human exposure to potentially infec-



On-board operation via display & keypad.

tious samples. The entire assay is performed in an enclosed environment and thus accidental or unauthorized interference is prevented at every stage during the assay procedure.

Performance and flexibility

ProfiBlot 48 allows the processing of up to 48 strips per run with a choice of up to 20 different programs. Each program may contain a maximum of 59 steps. Any of these programs can be stored for future use depending on the specific requirements of the laboratory. This flexibility is matched by further safety features.

For example, password protection of programs increases data safety and prevents unauthorized program changes.

Walk away system

ProfiBlot 48 can be operated via an integrated display & keypad in stand-alone mode. Strips for Western Blot assays are placed into the individual wells of the tray and samples are added. Through its advanced design and shape, the 48-well tray greatly improves sample handling and allows the use of multichannel pipettes for the transfer of samples into the wells.

At the push of a button, the entire procedure is started and requires no further input from the user. The display provides a way of checking every stage of the process and an audible signal indicates when the assay is complete.

Product highlights include:

- Automated processing of up to 48 samples per run
- Fast washing of 3 assay strips in parallel for high throughput
- Controlled timing also for short incubation steps
- On-board operation & BlotWare™ software for easy programming
- Color-coded reagent delivery system for up to 7 fluids
- Reagent saving feature minimizes dead volumes & running costs
- Auto-calibration of dispense volumes eliminates tedious manual procedure
- Separate collection of toxic & biohazardous waste minimizes waste treatment costs
- Pre-defined cleaning protocols for easy maintenance

Standardization of Western Blot analysis – higher accuracy and reproducibility



Dispensing & aspirating head.

Precise reagent delivery

The precise reagent delivery system of the ProfiBlot 48 provides consistent results every time with no cross-contamination across sample wells. An advanced calibration system performs a self-check with each individual pump. Subsequently, an auto-calibration system is available to recalibrate pumps eliminating tedious manual calibration procedures.

Easy tray handling

Disposable trays are used for the ProfiBlot 48 to eliminate the need for tedious tray cleaning. Especially with black-colored trays, which are typically used to minimize reflections during off-line tray scanning steps to document results, cleaning of a re-useable tray becomes a disadvantage compared to using disposable trays, as it is difficult for the operator to visually control cleaning effectiveness against the dark background of the tray material.

As a consequence of improper cleaning of re-useable trays false positive results may occur, which may lead to an increased workload & increased re-testing costs for laboratories.

To avoid these problems, the ProfiBlot 48 is equipped with disposable trays only, which have additionally been designed to meet the IVD-Directive 98/79/EC for Europe.



Color-coded reagent positions.

Delivering reliable results

Each instrument is equipped with up to seven reagent bottles. Bottles and tubing are color-coded for ease of identification. Separate collection of toxic waste and biohazardous waste in two individual bottles helps laboratories to minimize waste treatment costs.

For fast dispensing, the ProfiBlot 48 has two reagent channels with three pumps working in parallel and up to five channels for single position reagent addition. For fast aspiration of the wells, liquid is removed from the tray by using three aspiration pumps in parallel, processing three strips at a time.

Additionally, an automated cleaning procedure simplifies daily maintenance at the push of a button.

Ease of use

The ProfiBlot 48 can either be programmed from a PC using the BlotWare software or by using the onboard display & keypad. Dispense volumes, incubation time, shake speed and wash parameters can be set up in any combination within any given program. Once programming and downloading are completed, the PC can be disconnected and the ProfiBlot 48 will perform the assays in stand-alone mode.

Specifications ProfiBlot 48

General	
Display unit	liquid crystal display with 2 rows of 16 digits
Keyboard	4-key membrane keyboard
No. of dispensing channels	6 (7 th channel optional)
Capacity of reagent bottles	5 (optional 6) x 250 ml, 1 x 1000 ml
Capacity of waste bottles	1 x 500 ml toxic waste, 1 x 2500 ml hazardous waste
Program editor software	BlotWare software
Computer interface	USB, RS232
Disposable 48 well tray	black, antistatic

Variable	
No. of strips to be processed	up to 48 strips
No. of processing steps for each program	up to 59 different steps in one program
No. of programs	up to 20 different programs
Dispense volume	250 µl to 3000 µl in 250 µl steps
Incubation time	1 – 999 min in 1 min steps
Shake speed	5 different speeds can be selected
Dispensing accuracy @ 2000 µl	less than or equal to 10 %

Physical	
Width closed/ opened	804 mm / 804 mm
Height closed/ opened	460 mm / 671.4 mm
Depth closed/ opened	459 mm / 510.6 mm
Weight	36.8 kg

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