

ABOUT

VerdiBlot – The universal western blot membrane

VerdiBlot is a universal Western blot membrane. It is PFAS-free and 100% biodegradable, built for sensitive protein detection with very low background.

Performance: strong protein detection with very low background keeps faint bands distinct from non-specific signal. This matters for low-abundance targets, low volume or valuable samples and weak antibodies. It gives clear results with faint targets, phosphoproteins, human or clinical material and a range of protein sizes.

Detection: ultra-low autofluorescence across 280–800 nm. Works with fluorescent, chemiluminescent and colorimetric detection, standard blocking agents and total-protein stains.

Workflow fit: wet, semi-dry and dry transfer, with little or no protocol change. Usually no PVDF-style methanol pre-activation: wet it in alcohol-containing transfer buffer, or briefly in ethanol if needed.

Multiplexing: several targets on one membrane, with low background keeping channels separate. The practical limit is often the imaging system, not the membrane.

Stripping and reprobing: reuse the same transferred sample for multiple analyses, which is valuable when samples are scarce. The number of cycles depends on the protocol, so gentle, stepwise optimization is recommended.

Sustainability: a PFAS-free alternative to PVDF, which is a fluorinated polymer that persists in the environment. To our knowledge, it is currently the only 100% biodegradable Western blot membrane. It delivers performance and sustainability together.

Evaluation: best judged side by side against your current membrane, with your own samples and antibodies, comparing signal, background, band clarity, handling, multiplexing and stripping.

Formats: pre-cut 8.3 × 7.3 cm, pre-cut 10 × 10 cm, 30 cm × 3 m roll, (coming soon: 10 cm × 10 m mini roll)

Free samples: available for evaluation, contact: info@verdiblot.com.



Miroslav Přibyl, Head of Business Development and Sales VerdiBlot Lam-X

Is Your Membrane Affecting Your Western Blot Results?

When a western blot fails, we blame the antibody, the sample or the student. The membrane almost never makes the list, yet it decides what your blot can show you.

Nitrocellulose (NC) and PVDF are not interchangeable. Published data shows NC performing better for small proteins (~20 kDa) and PVDF for large ones (~150 kDa). NC binds proteins mainly through hydrophilic interactions, PVDF through hydrophobic ones. Pick the wrong one and part of your data never appears.

VerdiBlot, a polycaprolactone membrane from the Czech start-up LAM-X, removes that trade-off: its polymer carries both hydrophobic and hydrophilic groups, so it binds proteins both ways. This gives proteins more options to bind to the membrane and allows stronger signal detection.

The reason is also structural. In porous membranes, proteins get buried where antibodies cannot reach them. VerdiBlot's unique structure keeps bound protein accessible and allows better transfer efficiency, so more is transferred and more of it is detected. Background stays very low in chemiluminescence and fluorescence, and membranes can be stripped and reprobed up to three times.

Is your signal already strong enough? With VerdiBlot, some antibodies may run at up to 1:2500 instead of 1:1000 while giving the same results as with other materials. VerdiBlot is also fluoropolymer-free and biodegradable.

For PhD students, postdocs and group leaders who run western blots, especially with scarce samples or low-abundance targets, VerdiBlot is an ideal choice for superior results.

Free evaluation kits will be available at the event: run the comparison on your own bench.

