



ScanLater Western Blot Detection System

Enabling the SpectraMax i3/i3x and Paradigm microplate readers

KEY FEATURES

- Western blot detection on a microplate reader
- Extended signal stability via substrate-free method
- Expanded dynamic range eliminates cumbersome optimization

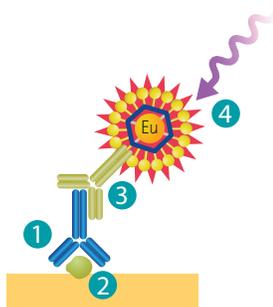
The ScanLater™ Western Blot Detection System enables first-of-its-kind western blot membrane detection in a multi-mode microplate reader platform. This system includes the ScanLater Western Blot Detection Cartridge, ScanLater Western Blot Assay Kit, and image acquisition powered by SoftMax® Pro Software. Users can install the ScanLater Western Blot Detection Cartridge in either the SpectraMax® i3/i3x or a SpectraMax® Paradigm® Multi-Mode Microplate Reader in just minutes, adding western blot detection capability to the microplate reader, rather than investing in a separate western blot detection system.

The ScanLater Assay is a time-resolved fluorescence (TRF)-based western blot detection assay. TRF is an optimal detection method as reduction in stray excitation light results in lower background and higher sensitivity. ScanLater Western Blot Kits contain Europium-labeled secondary

antibodies designed to work with existing primary antibodies without further optimization. This substrate-free method of western blot detection not only outperforms traditional chemiluminescence and fluorescence-based western blot detection, it significantly extends signal stability, allowing membrane scanning at any time.

ScanLater Western Blot Assay Kit

The kit contains all components needed to go from transfer to detection. There are five kits available: Anti-Mouse, Anti-Rabbit, Anti-Goat, Anti-Rat or Streptavidin. Each kit contains enough Europium-labeled secondary antibody, blocking buffer, and wash buffer to run 10 mini-sized membranes (explorer) or 30 mini-sized membranes (bulk). All kits are validated for use on the SpectraMax i3/i3x and SpectraMax Paradigm readers.



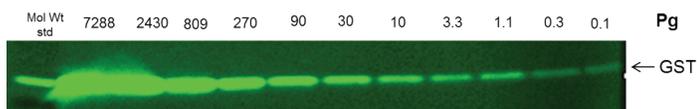
ScanLater Assay principle. Use existing primary antibody (1) for binding to protein of interest (2). Eu-labeled ScanLater Secondary Antibody (3) binds to primary antibody. Detection with ScanLater TRF Western Blot Detection Cartridge (4).



Western blot membrane holder. The ScanLater Western Blot membrane holder accommodates a wide variety of membranes.



ScanLater Western Blot Cartridge. The ScanLater Western Blot Detection Cartridge is user installable on the SpectraMax i3/i3x or SpectraMax Paradigm reader.



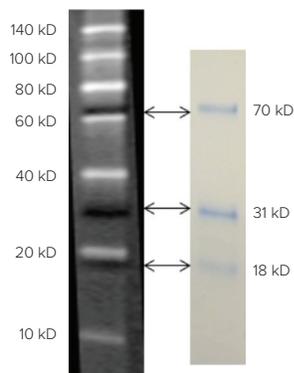
High sensitivity and wide detection range. TRF effectively reduces background auto fluorescence, and therefore enables lowest detection limit (LLD) at sub-picogram level, and linear signal across a wide range of concentrations.

ScanLater Western Blot Protein Ladder

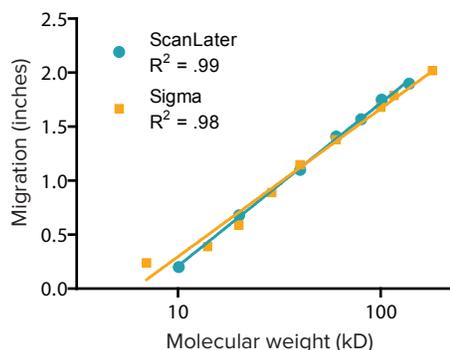
The ladder consists of seven biotinylated recombinant proteins at 10, 20, 40, 50, 80, 100 and 140 kD. They are detected by incubating the blot with Europium-labeled streptavidin and they show as light colored bands when read with the ScanLater Western Blot Detection Cartridge. In addition, there are three visible pre-stained marker proteins at 18, 31, and 70 kD. These blue bands are seen on the electrophoresis gel and on the blot after transfer. They are also seen as dark bands when the ladder is read with the ScanLater Western Blot Detection System.

ScanLater Western Blot Detection Cartridge

Driven by SoftMax Pro Software, the cartridge allows one software platform to run both microplate-based assays and western blot membrane detection. The software provides a simple interface for acquiring *.TIF-based images which may be printed, saved or exported to third-party analysis packages. Using an add-on for *ImageJ* in SoftMax Pro Software, ScanLater Western Blot images are seamlessly exported with a single click to *ImageJ*.



ScanLater Western Blot Protein Ladder. Seven white bands (left) are biotinylated protein engineered at specified molecular weight, and used to estimate molecular weights of blotted proteins. They are detected after incubation with Eu-streptavidin and read on the ScanLater Western Blot Detection System. Three dark bands are pre-stained protein used to monitor progress of protein electrophoresis, blot orientation, and assess transfer efficiency. They are visible as blue bands during these processes.



Migration vs. molecular weight. The migration distances of seven proteins in the ScanLater Western Blot Protein Ladder are plotted and fitted as a function of their respective molecular weights. The linear relationship is similar to that of a reference product from Sigma cat. #B2787.

Technical specifications	
Cartridge size	2 positions on instrument
Mounting	Top read
Light source	Xenon flash lamp
Excitation range	340/80 nm
Emission range	616/10 nm

Ordering information		
Item	Includes	Part number
ScanLater Western Blot Hardware	<ul style="list-style-type: none"> ScanLater Western Blot Detection Cartridge Membrane sample holder SoftMax Pro Software 6.3.1 or greater 	0200-7027
Assay Kit ScanLater: Eu-Streptavidin Evaluation Kit	<ul style="list-style-type: none"> Europium-labeled streptavidin (20 µg) Blocking buffer (40 mL) Wash buffer (100 mL) For 10 mini gels with recommended protocol 	R8200
Assay Kit ScanLater: Eu-Streptavidin Bulk Kit	<ul style="list-style-type: none"> Europium-labeled streptavidin (60 µg) Blocking buffer (120 mL) Wash buffer (300 mL) For 30 mini gels with recommended protocol 	R8203
Assay Kit ScanLater: Anti-Mouse Evaluation Kit	<ul style="list-style-type: none"> Europium-labeled goat anti-mouse antibody (20 µg) Blocking buffer (40 mL) Wash buffer (100 mL) For 10 mini gels with recommended protocol 	R8201
Assay Kit ScanLater: Anti-Mouse Bulk Kit	<ul style="list-style-type: none"> Europium-labeled goat anti-mouse antibody (60 µg) Blocking buffer (120 mL) Wash buffer (300 mL) For 30 mini gels with recommended protocol 	R8205
Assay Kit ScanLater: Anti-Rabbit Evaluation Kit	<ul style="list-style-type: none"> Europium-labeled goat anti-rabbit antibody (20 µg) Blocking buffer (40 mL) Wash buffer (100 mL) For 10 mini gels with recommended protocol 	R8202
Assay Kit ScanLater: Anti-Rabbit Bulk Kit	<ul style="list-style-type: none"> Europium-labeled goat anti-rabbit antibody (60 µg) Blocking buffer (120 mL) Wash buffer (300 mL) For 30 mini gels with recommended protocol 	R8204

Ordering information		
Item	Includes	Part number
Assay Kit ScanLater: Anti-Goat Evaluation Kit	<ul style="list-style-type: none"> Europium-labeled donkey anti-goat antibody (20 µg) Blocking buffer (40 mL) Wash buffer (100 mL) For 10 mini gels with recommended protocol 	R8224
Assay Kit ScanLater: Anti-Goat Bulk Kit	<ul style="list-style-type: none"> Europium-labeled donkey anti-goat antibody (60 µg) Blocking buffer (120 mL) Wash buffer (300 mL) For 30 mini gels with recommended protocol 	R8227
Assay Kit ScanLater: Anti-Rat Evaluation Kit	<ul style="list-style-type: none"> Europium-labeled donkey anti-rat antibody (20 µg) Blocking buffer (40 mL) Wash buffer (100 mL) For 10 mini gels with recommended protocol 	R8225
Assay Kit ScanLater: Anti-Rat Bulk Kit	<ul style="list-style-type: none"> Europium-labeled donkey anti-rat antibody (60 µg) Blocking buffer (120 mL) Wash buffer (300 mL) For 30 mini gels with recommended protocol 	R8228
Protein Ladder ScanLater Western Blot Protein Ladder	<ul style="list-style-type: none"> 7 biotinylated recombinant proteins at 10, 20, 40, 60, 80, 100, and 140 kD 3 pre-stained marker proteins at 18, 31, and 70 kD Ready to use, for 30 mini gels with recommended protocol 	R8220

Assay Kit Components

ScanLater Wash Buffer (100 mL)	R8206
ScanLater 5x Blocking Buffer (120 mL)	R8207
ScanLater Goat Anti-Mouse Eu-labeled Antibody (60 µg)	R8208
ScanLater Goat Anti-Rabbit Eu-labeled Antibody (60 µg)	R8209
ScanLater Eu-labeled Antibody Streptavidin (60 µg)	R8212
ScanLater Eu-Anti-Goat IgG (60 µg)	R8226
ScanLater Eu-Anti-Rat IgG (60 µg)	R8229

Compatible with these Molecular Devices systems



SpectraMax i3/i3x Multi-Mode
Microplate Reader



SpectraMax Paradigm Multi-Mode
Microplate Reader

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