DETECTION ON BLOTS

Immun-Star™ WesternC™ Chemiluminescence Kit

Chemiluminescent Blots Suitable for CCD Imaging

**Detection on Blots**
The Immun-Star WesternC chemiluminescence kit, a member of the Immun-Star family of chemiluminescent detection products, is optimized for use with charge-coupled device (CCD) imagers. This convenient, versatile kit is used for both qualitative and quantitative analysis of proteins on blots. It generates the intense, long-lasting signals that are critical for high-resolution imaging with CCD imagers, such as the Molecular Imager® ChemiDoc™ XRS, ChemiDoc MP, and VersaDoc™ MP systems.

**Chemiluminescent Western Blotting**
Chemiluminescent detection is a popular method of protein detection on western blots because of its speed and sensitivity: the Immun-Star WesternC kit detects mid-femtogram amounts of protein. The kit offers detection sensitivity comparable to that of autoradiographic methods without the disadvantages related to isotope detection, such as exposure, disposal, and environmental concerns.

Chemiluminescent detection is based on the interaction of a chemiluminescent substrate with an enzyme that has been conjugated to an antibody. When the enzyme-antibody conjugate binds to the substrate, it catalyzes a reaction that produces light.

The Immun-Star WesternC chemiluminescence kit is compatible with all horseradish peroxidase (HRP)-conjugated secondary antibodies and includes an enhancer to increase the intensity and duration of the emitted light signal.

**Chemiluminescent Blots Suitable for CCD Imaging**
CCD imagers offer the advantages of instant image capture and a larger dynamic range than that of film-based systems. The Immun-Star WesternC chemiluminescence kit is designed to complement CCD imagers by offering strong and intense signals with a 24 hour signal duration for multiple exposures and for optimization of the images using Image Lab™ and Quantity One® software packages. Customers using the Immun-Star WesternC chemiluminescence kit for CCD imaging can expect improved quantitative results within each experiment compared with what can be obtained by film-based systems.

**Comparison of Immun-Star Chemiluminescence Kits**

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<th>Immun-Star Alkaline Phosphatase (AP) Kits</th>
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<tr>
<td>Sensitivity</td>
<td>1 pg</td>
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<td>Recommended antibody dilutions*</td>
<td>Primary: 1:1,000–1:6,000, Secondary: 1:15,000–1:130,000</td>
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<td>Primary: 1:1,000–1:50,000, Secondary: 1:50,000–1:250,000</td>
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<td>Shelf life</td>
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<td>4°C for 1 year</td>
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<td>Recommended membrane</td>
<td>Nitrocellulose or PVDF</td>
<td>Nitrocellulose or PVDF</td>
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* 1 mg/ml starting concentration.
Blot Detection of Standards

Precision Plus Protein™ WesternC™ standards complement the Immun-Star WesternC kit. The standard proteins can be imaged on the blot using StreptTactin-HRP conjugate for convenient and accurate molecular weight estimation on western blots. These standards generate standard curves with an R² value >0.99, demonstrating a strong linear relationship between the proteins’ log molecular weight and their migration distance in the gel. Detecting these standards on blots through CCD imaging is a straightforward procedure that uses conventional blotting methods and reagents.

Compatibility with Precision Plus Protein WesternC standards. Left, blot image captured by the ChemiDoc XRS system shows the outstanding sharpness and clarity of the standards by loading 5 µl of the standards along with a sample of unknown molecular weight. Right, molecular weight can be accurately estimated by plotting log molecular weight vs. the relative migration distance (R) of the standards. WesternC standards and a sample were run on a 4–20% Tris-HCl gel, transferred to a PVDF membrane, and developed using the Immun-Star WesternC kit.

Ordering Information

Catalog # Description

Immun-Star Detection Kits

161-0381 Precision Protein™ StreptTactin-HRP Conjugate, 300 µl, 150 applications
161-0382 Precision Protein StreptTactin-HRP Conjugate, 125 µl, 50 applications
170-5047 Immun-Star Goat Anti-Mouse (GAM)-HRP Conjugate, 2 ml, lyophilized
170-5046 Immun-Star Goat Anti-Rabbit (GAR)-HRP Conjugate, 2 ml, lyophilized
170-6404 Blotting Grade Blocker, nonfat dry milk, 300 g

Nitrocellulose Membrane (0.45 µm)

162-0251 Nitrocellulose Membranes, 26.5 × 28 cm, 50 pack
162-0252 Nitrocellulose Membranes, 26.5 × 28 cm, 50 pack
162-0253 Nitrocellulose Membranes, 15.3 × 13.5 cm, 50 pack
162-0254 Nitrocellulose/Fiber Paper Sandwiches, 8.5 × 13.5 cm, 20 pack
162-0255 Nitrocellulose/Fiber Paper Sandwiches, 8.5 × 13.5 cm, 50 pack

Nitrocellulose Membrane (0.2 µm)

162-0255 Immun-Blot PVDF Membranes, 25 × 28 cm, 10 sheets
162-0256 Immun-Blot PVDF Membranes, 25 × 28 cm, 50 pack
162-0257 Immun-Blot PVDF Membranes, 10 × 15 cm, 10 sheets
162-0258 Immun-Blot PVDF Membranes, 7 × 13.5 cm, 20 pack
162-0259 Immun-Blot PVDF Membranes, 7 × 13.5 cm, 50 pack
162-0260 Immun-Blot Low Fluorescence PVDF/Fiber Paper Sets, 7 × 8.5 cm, 10 sheets of membrane, 20 sheets of precut filter paper
162-0261 Immun-Blot Low Fluorescence PVDF/Fiber Paper Sets, 7 × 8.5 cm, 50 pack
162-0262 Immun-Blot Low Fluorescence PVDF/Fiber Paper Sets, 8.5 × 13.5 cm, 50 pack
162-0263 Immun-Blot Low Fluorescence PVDF/Fiber Paper Sets, 8.5 × 13.5 cm, 20 pack

Immun-Star Goat Anti-Mouse (GAM)-HRP Conjugate

161-0391 Immun-Star Goat Anti-Mouse (GAM)-HRP Conjugate, 300 µl, 150 applications
161-0392 Immun-Star Goat Anti-Mouse (GAM)-HRP Conjugate, 125 µl, 50 applications
161-0393 Immun-Star Goat Anti-Mouse (GAM)-HRP Conjugate, 250 µl, 50 pack
161-0394 Immun-Star Goat Anti-Mouse (GAM)-HRP Conjugate, 750 µl, 10 pack

Immun-Star Goat Anti-Rabbit (GAR)-HRP Conjugate

161-0385 Immun-Star Goat Anti-Rabbit (GAR)-HRP Conjugate, 300 µl, 150 applications
161-0386 Immun-Star Goat Anti-Rabbit (GAR)-HRP Conjugate, 125 µl, 50 applications
161-0387 Immun-Star Goat Anti-Rabbit (GAR)-HRP Conjugate, 250 µl, 50 pack
161-0388 Immun-Star Goat Anti-Rabbit (GAR)-HRP Conjugate, 750 µl, 10 pack

Blotting Grade Blocker

161-0381 Blotting Grade Blocker, nonfat dry milk, 300 g