reddot design award

e-BLOT PHOTOELECTRICS

TOUCH IMAGER

e-BLOT

TOUCH IMAGER

The first imaging system with Contact Imaging Technology™ for ***chemiluminescence*** in the world.

Small footprint | Ultra-sensitivity | Wide dynamic range

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Applications:

- Chemiluminescence western blots
- SDS-PAGEs

Chemiluminescence:

High sensitivity imaging of Western blots along with Contact Imaging Technology™.

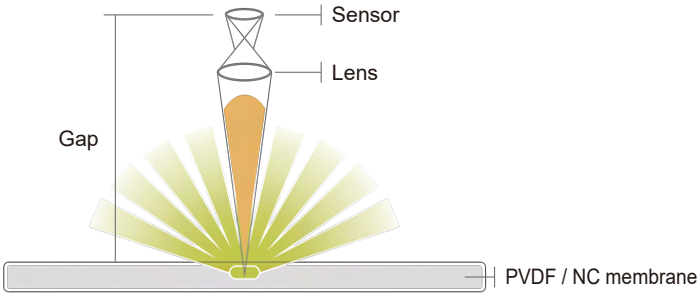
Wide dynamic range & High sensitivity

Super large photosensitive chip with better low light performance.

Analysis:

Strong quantitative analysis of chemiluminescence via Touch Viewer™.

Conventional ways



Photographic film imaging

Advantages:

- Minimal loss of signal because of contact capturing
- Unlimited exposure times can be used to capture extremely low abundant targets.

Limitations:

- Lower orders of magnitude dynamic range
- Requires multiple exposures to obtain ideal image
- Requires dedicated darkroom space and film processing steps before signal can be visualized.
- Notorious liquid waste disposal: toxic and non-eco-friendly

Camera lens with CCD sensor

Advantages:

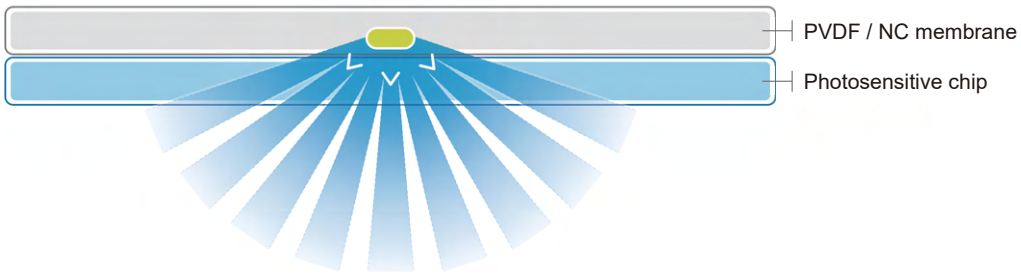
- Higher orders of magnitude dynamic range
- Digital capture of data streamlines archiving of results
- Less time needed optimizing exposure for the best balance of signal to noise via auto-exposure algorithms

Limitations:

- Losses of 99% of signals and significantly reduces the sensitivity.
- Extended exposures with weak signals can result in increased background from camera noise, affecting the overall signal-to-noise ratio
- Take bigger space.

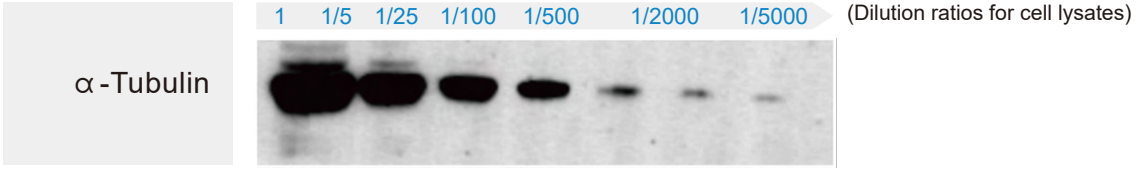
Contact Imaging Technology™ — *Electronic photographic imaging*

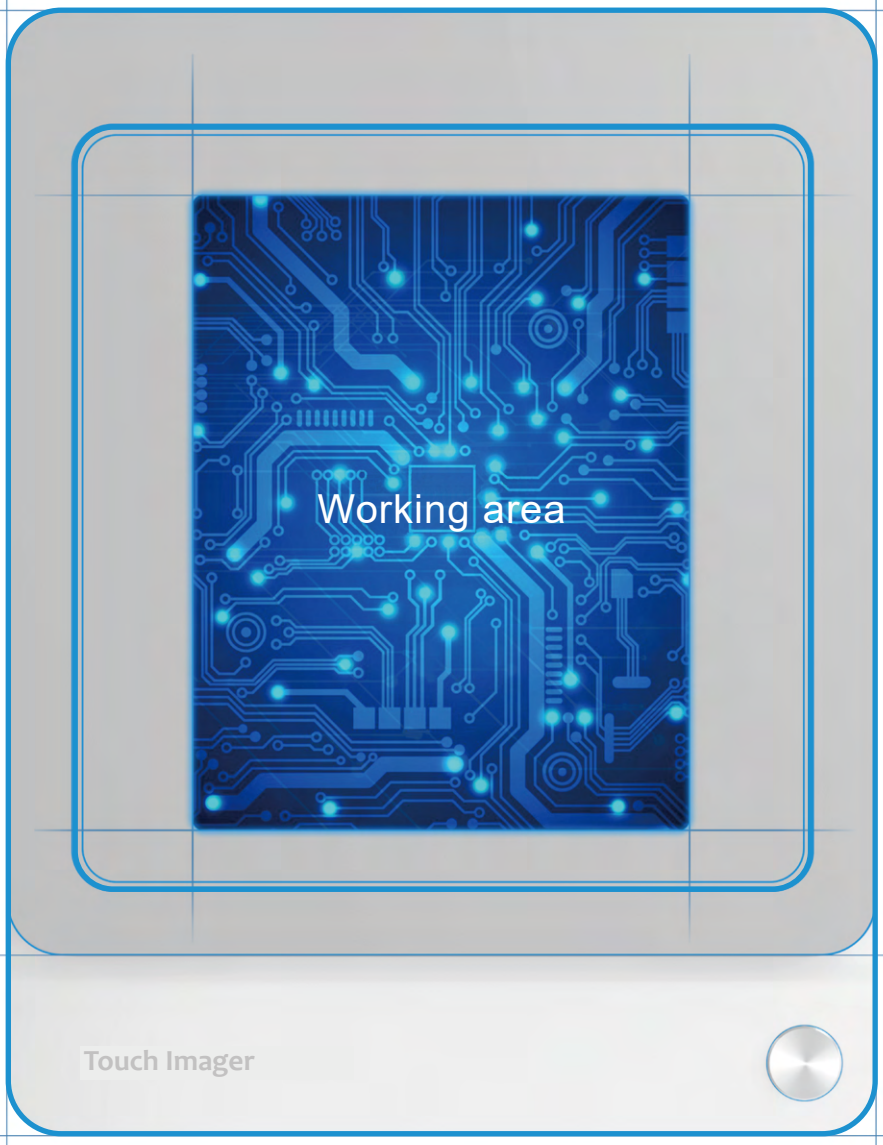
Combining the advantages of X-ray film as well as CCD camera-based imaging instruments



Advantages:

- No compromise on the loss of signal.
- High sensitivity (Better low light performance)
- High dynamic range
- High full-well capacity
- Digitalization for easy post-processing.
- Small footprint

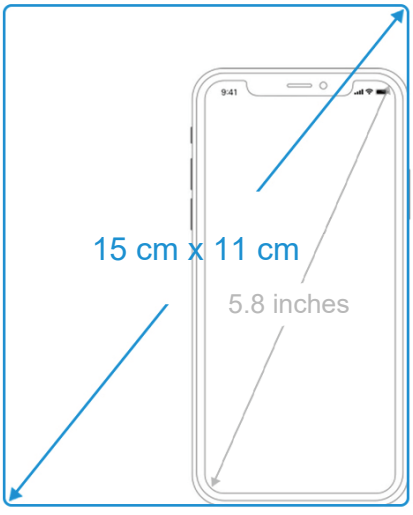




Super large photosensitive chip

Working area: 15 cm x 11 cm

The first imaging system with Contact Imaging Technology™ for Western Blotting (chemiluminescence).



Wide dynamic range

No compromise on the loss of signal.

e-BLOT Touch Imager VS X-ray film

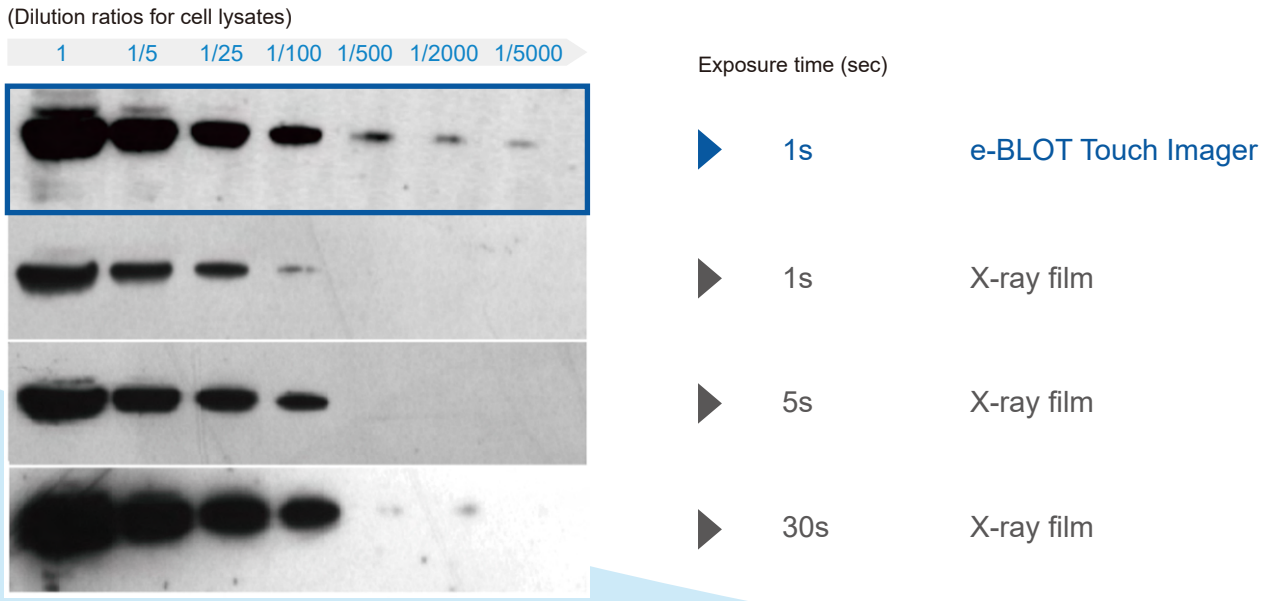


Figure 1. Increased dynamic range with e-BLOT Touch Imager

Cell lysates were diluted, transferred to nitrocellulose membrane and probed for α-Tubulin. Blots were exposed to X-ray film or imaged using e-BLOT Touch Imager. e-BLOT Touch Imager provides the greatest range of signal from the highest load to the lowest load in one image. Strong signals quickly reached a plateau when detected with film with extended exposures.

High sensitivity

- Capture extremely low abundant targets with weak signals
- Save your treasured antibodies

e-BLOT Touch Imager VS CCD Camera

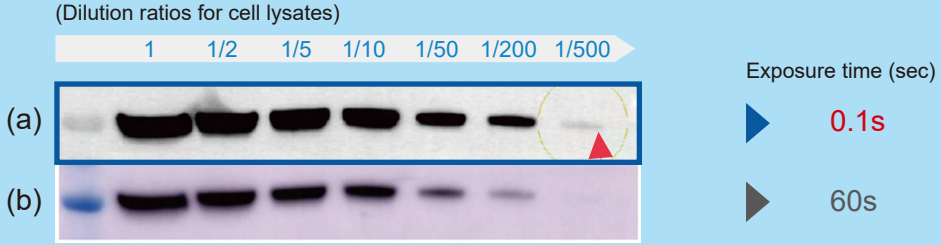


Figure 2. e-BLOT Touch Imager with better low light performance

Cell lysates were diluted, transferred to nitrocellulose membrane and probed for α-Tubulin.

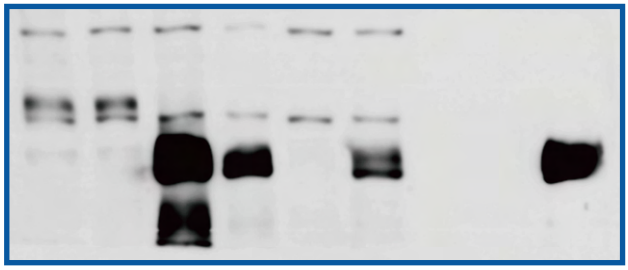
(a) Imaged on e-BLOT Touch Imager with a 0.1s exposure.

(b) Imaged on another renowned CCD imaging system with a 60s exposure.

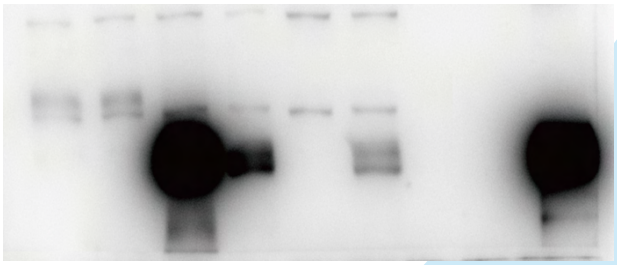
High full-well capacity

e-BLOT Touch Imager prevents overexposure and underexposure resulting in data that can provide more meaningful quantitation

Imaged on e-BLOT Touch Imager



Imaged on another renowned CCD imaging system



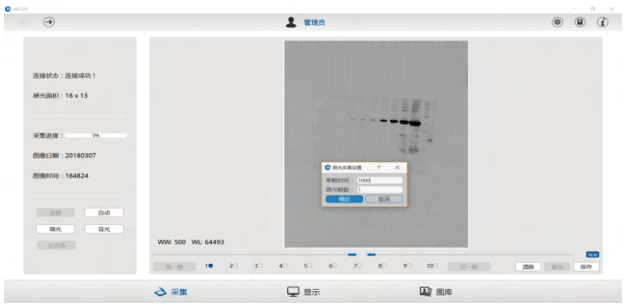
Chemiluminescent signals can easily be saturated on other imaging systems due to the limited dynamic range.

e-BLOT

Only one-click needed for your chemiluminescent signals

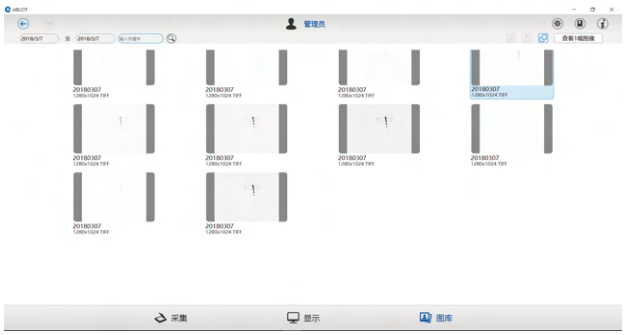
1. One-Click Imaging

- Auto-exposure
- Manual exposure setting
- Signal accumulation mode
- Real-time Image optimization



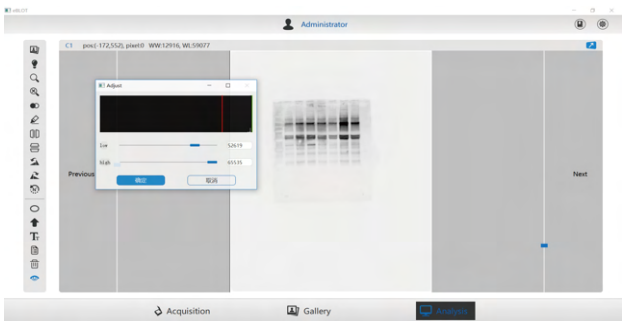
2. Viewing Images

- Auto-storage
- Printing or Copy mode setting
- Personal user account



3. Data Analysis- Touch Viewer™

- Image flipping / Brightness & Contrast adjusting
- Signal quantification
- Merge function for protein markers with white light



Applications:

- Chemiluminescence
- SDS-PAGEs

Technical Specifications:

Imaging area: 15 cm x 11 cm
Pixel size: 100 x 100 µm
Pixel number / Resolution: 1500 x 1100
Cooling System: No required
Dynamic range: 16 bits
Exposure time: 0.1s-600s
Exposure setting: Auto / Manual
Signal accumulation mode
Analyzer: Touch Viewer™
Dimension: 21 x 28 x 5 cm

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reddot design award

Essen/Germany, March 2018

Your success in the Red Dot Award: Product Design 2018

Dear Ms SHAO,

Congratulations! Your product has been awarded in the Red Dot Award: Product Design 2018. On behalf of all Red Dot jurors, allow me to congratulate you sincerely on your success.

This year, we received submissions from 59 countries. All of the products entered were assessed individually by an independent and international jury of experts. The Red Dot Award: Product Design thus stands more than ever for one of the most renowned evaluation processes for good design and innovation.

You have every reason to be proud of your award as you came out on top in a comparison with the best in the industry. Order your Winner Package now, and use the Red Dot Winner Label as well as all of the other benefits for your communication. Furthermore, your product will be presented in the Red Dot Design Museum, the largest museum for contemporary design.

I look forward to welcoming you in Essen on 9 July to celebrate your success with you at the Red Dot Gala and the subsequent Designers' Night.

Best regards

Professor Dr Peter Zec
Founder and president of Red Dot

e-BLOT

*No worries to miss "your **light**"*
in the life anymore.

e-BLOT TOUCH IMAGER