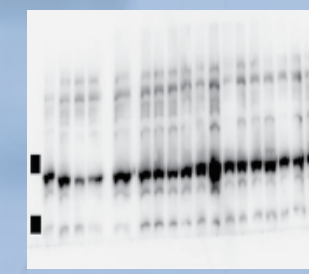
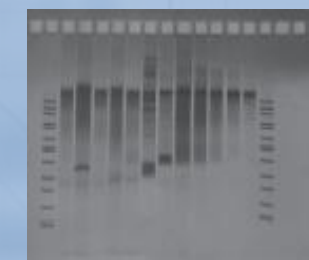
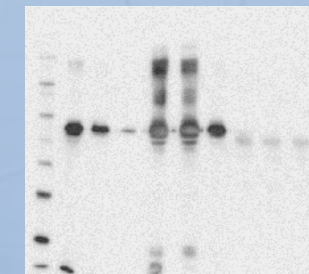
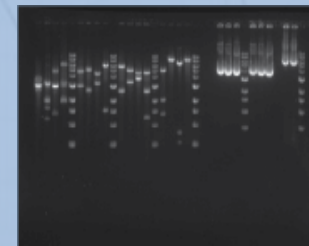




Celvin[®] S

The smallest camera-based
Chemiluminescence Imager for
Western Blots



Celvin[®] S

The Innovation for Western Blots



Clever =

Cooled 16 bit camera

Elegant =

Small personal system

Light intense =

Exposure time up to 24 hours

Valuable =

Flexible configurations, camera resolution 8.3 Mpixel

Innovative =

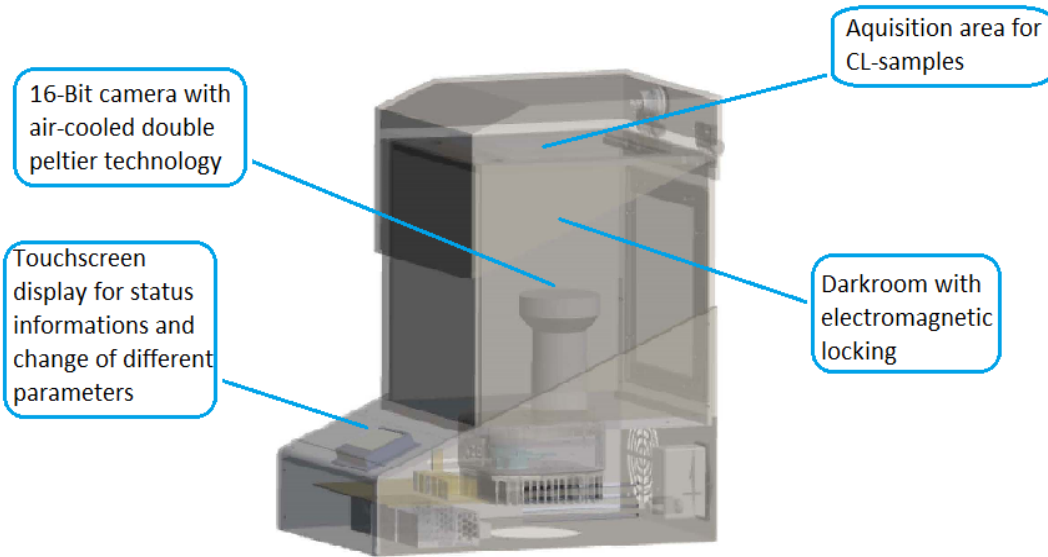
Binning, image addition, touchscreen

New technique

For an unbeatable price



Technology and Innovation



Camera, optics & illumination

- Powerful, cooled 16 Bit CCD-camera
- Camera resolution up to 8.3 Mpixel
- Excellent detection sensitivity for all chemiluminescence applications
- Maximum exposure time 24 hours
- Hardware binning up to 6 x 6
- White epi light for colorimetrically – stained markers with intensity 10 – 100%



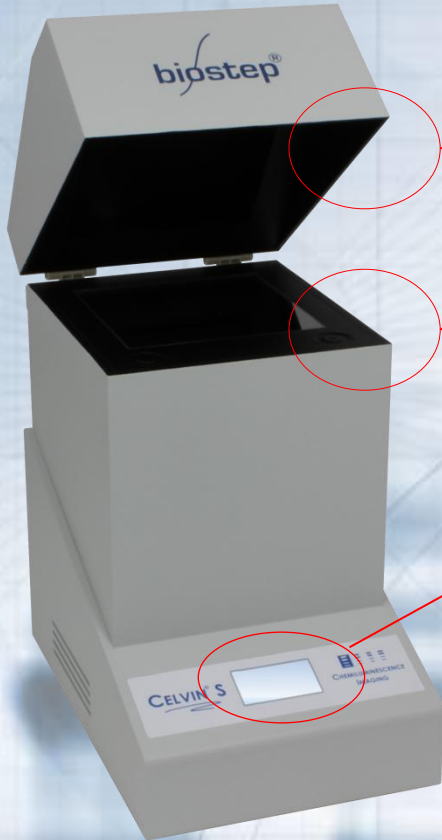
8.3
Mpx



16Bit

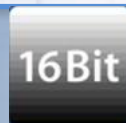
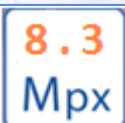


New standard for personal CL-Detektion



Clear Advantages

- Convenient safety tool by an electromagnetic locking
- Sensitive CCD-camera „EagleIce®“ developed and produced by biostep®
- One-hand operation and status information by touchscreen
- Small, compact und space-saving CL system
- Storage of the acquisition settings in individual, application-dependent methods
- Acquisition of image series for signal reinforcement
- Comfortable and automatic handling via user-friendly software



Celvin[®] S vs. conventional Chemiluminescence systems

Parameters	Film-based detector with development machine	Scanner-based detector	Camera-based detector with standard systems	Camera-based detector with series Celvin [®] S
Resolution	+++	++	++	++
Sensitivity	+++	++	+++	+++
Automated calculation of the optimal exposure time	-	-	+++	+++
Exposure time	Without restriction	Seconds to minutes per pixel	Up to 24 hours	
Total measurement time for sample detection	Identical with exposure time	Exposure time x number of pixels	Identical with exposure time	
Possibility of quantification	Very low, due to non-linear double S-curve	Low, due to point-shaped recording of the samples	Very good	
Linear dynamic range	8 Bit	16 Bit		
Recording of colorimetrically-stained markers	Not possible		Yes	With dimmable white epi light

Celvin[®] S vs. conventional Chemiluminescence systems

Parameters	Film-based detector with development machine	Scanner-based detector	Camera-based detector with standard systems	Camera-based detector with series Celvin [®] S
Max. sample size	+++	+	+++	++
Live image speed	Not relevant	-	++	++
Detection unit	Film	CCD row/ photodiode/ PMT	CCD area sensor	
Cooling to minimize background noise	Not relevant	Only in expensive systems	Peltier-cooled camera	
Binning	Not relevant	Not possible	Yes	Up to 6 x 6
Locking during the measuring	Not possible	Not available in most systems	Not available in most systems	electromagnetic locking
Purchase price (approx.) on EUR net	6 – 15 T€ Film developing machine	6 – 100 T€	20 – 50 T€	9 – 15 T€
Cost of maintenance (service)	High	low		
Cost for consumables	High (acquisition and disposal)	None (only consumption of electricity)		

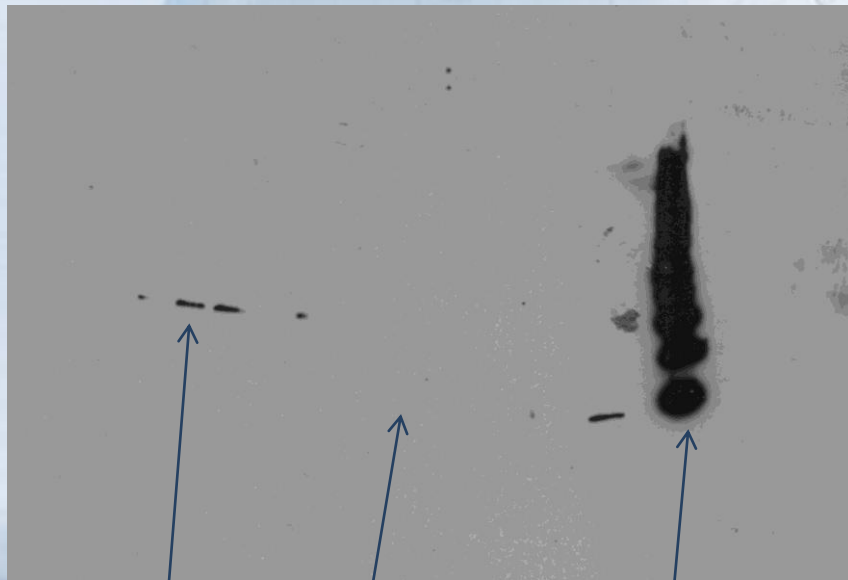
Overview of the products in the range Celvin[®] S

Parameters	Celvin [®] S 420	Celvin [®] S 830	Celvin [®] S 160+	Celvin [®] S 320+
Resolution	++	+++	+	++
Sensitivity	++	+	+++	+++
Live image speed	++	+	+	+
Exposure time	0.030 s – 24 h	0.5 s – 24 h	0.5 s – 24 h	0.5 s – 24 h
Max. sample size	14 x 14 cm	14 x 12 cm	12 x 8 cm	13 x 9 cm

+ well ++ very well +++ excellent

Measurements

WesternBlot Detection with Film
Exposure Time: 1 min

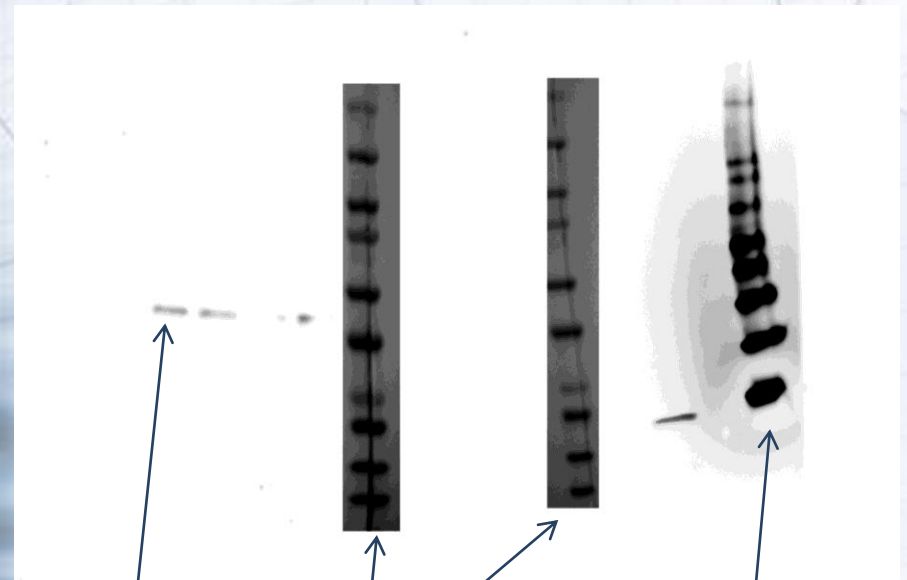


Sample bands

CL-Marker

No possibility to place
colorimetrically-stained markers

WesternBlot Detection with Calvin® S 420
Exposure Time: 1 min



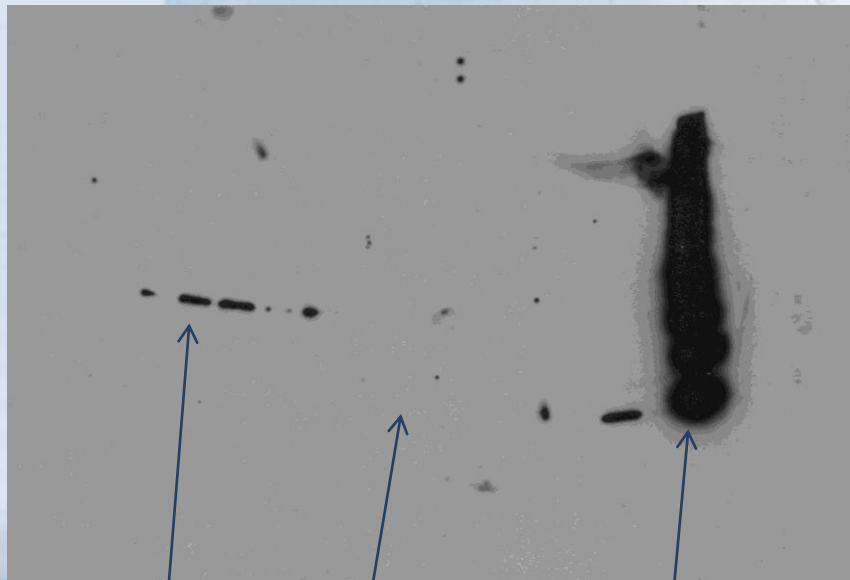
Sample bands

CL-Marker

Accurate placement of
colorimetrically-stained markers

Measurements

WesternBlot Detection with Film
Exposure Time: 5 min

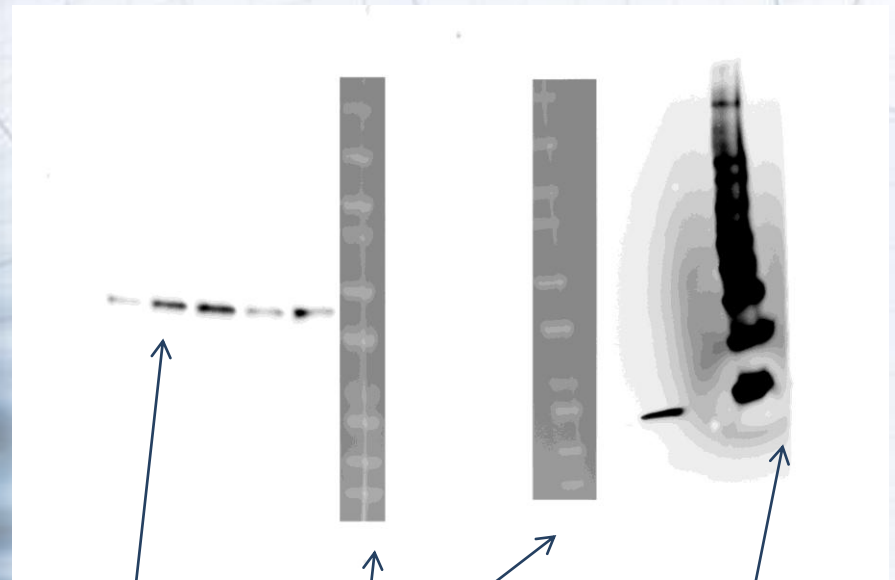


Sample bands

CL-Marker

No possibility to place
colorimetrically-stained markers

WesternBlot Detection with Calvin® S 420
Exposure Time: 5 min

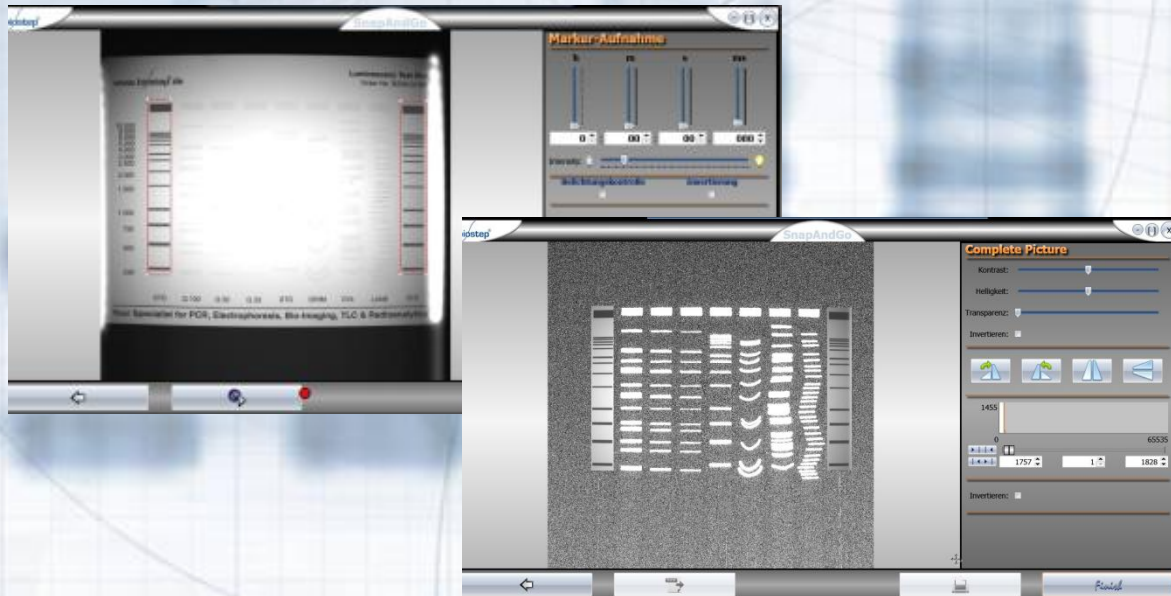


Sample bands

CL-Marker

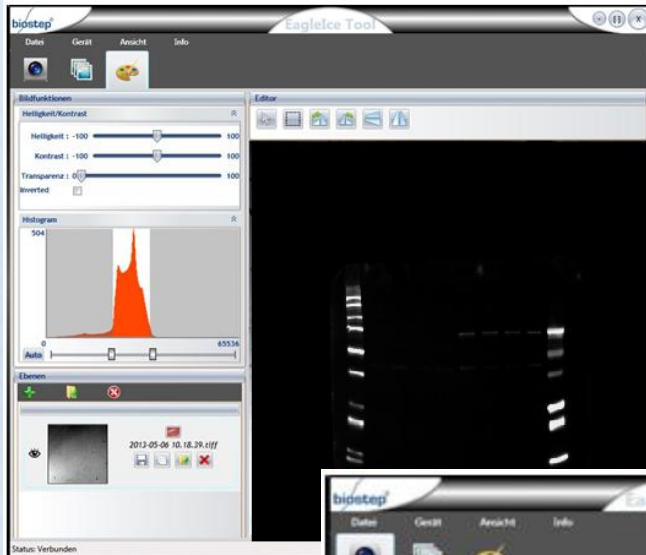
Accurate placement of
colorimetrically-stained markers

SnapAndGo[®] Celvin[®] S



- ✓ Free Capture Mode (easy single Images)
- ✓ GXP Capture Mode (Imaging of Gels- and markern with unit option)
- ✓ Series images (individual, methodical)
- ✓ 0.03 s – 24h Integration time
- ✓ CCD-Kamera „EagleIce[®] up to 8.3 Mio. Pixel
- ✓ Highest Resolution ↔ Highest Sensitivity

SnapAndGo[®] Celvin[®] S



- ✓ easy intuitive handling
- ✓ capture, storage and print out of the acquisition parameters for each image
- ✓ function for insertion of colorimetrically-stained markers in the CL image
- ✓ diverse acquisition scenarios:
 - automatic
 - single image
 - addition of image series with display of all interim results

Summary

Celvin[®] S



Clever =

One-hand operation and status information by touchscreen, convenient safety tool by an electromagnetic locking

Elegant =

Smart and small personal CL-Detection system, complete PC-controlled

Light intense =

Exposure time up to 24 hours, simple protecting the blots against drying

Valuable =

Integration of our own developed and produced highly sensitive CCD camera „EagleIce“– different camera models to get high flexibility on different customers demands

Innovative =

Binning, image addition, touchscreen

New technique =

for an unbeatable price