

Chemi-Lumi One Series

Chemi-Lumi One is a series of high sensitive luminol-based chemiluminescence assay kits for Western Blotting. We offer three types of chemiluminescent substrates for Western blot detection with horseradish peroxidase enzyme (HRP).

Selection Guide

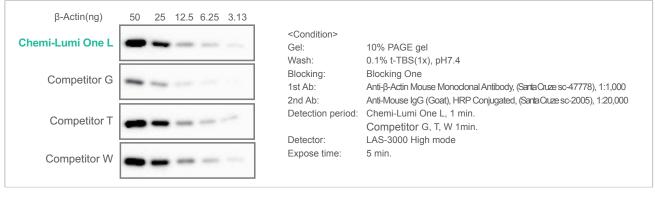
Product Name	Chemi-Lumi One L	Chemi-Lumi One Super	Chemi-Lumi One Ultra	
Product No.	07880	02230	11644	
Usage	General Use	High Sensitive	Ultra high Sensitive	
Lower Detection Limit	Low-picogram	Mid-femtogram	Low-femtogram	
Required Working Solution	Approx. 0.125 ml / cm ²	Approx. 0.1 ml / cm ²	Approx. 0.1 ml / cm ²	
Suggested Antibody Dilution	Primary: 1:1,000-1:5,000 Secondary: 1:20,000-1:100,000	Primary: 1:1,000-1:20,000 Secondary: 1:20,000-1:200,000	Primary: 1:5,000-1:100,000 Secondary: 1:100,000-1:500,000	
Reaction Period	1 min.	1 min.	5 min.	
Comparable to	ECL SuperSignal Pico	ECL Prime SuperSignal Dura	ECL Select SuperSignal Femto	
Sensitivity	Conc. of IgG HRP-linked 900 Chemi-Lumi One L Chemi-Lumi One	Picogram 300 100 33.3 11.1 3.7 1.2 412	Ultra high Sensitive Femtogram 137 46 15 3	
	Chemi-Lumi One Ultra			
	<condition> Antigen: Anti-Mouse IgG (Goat), HRP Conjugated (Santa Cruz, sc-2005) Detection: L (1 min.), Super (1 min.) and Ultra (5 min.) Detector: LAS-3000 Super mode (Analyze 3 min. later after reaction with each substrate) Expose time: 30 min.</condition>			

Chemi-Lumi One L

- » Suitable for optimization approach of target proteins
- » Reasonable price in Chemi-Lumi One Series
- » Detect wide range of protein concentration

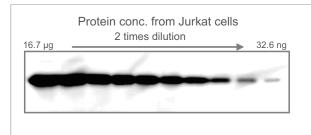
Comparison of sensitivity with competitors

Chemi-Lumi One L offers the similar sensitivity as T and W company's products and higher sensitivity than G company's products.



Comparison of detection limit

Chemi-Lumi One L is suitable for detection of unknown protein concentration or optimization conditions.



<Condition>

Gel: 10% PAGE gel Wash: 0.1% t-TBS(x1), pH7.4

Blocking: Blocking One

1st Ab: Anti-β-Actin Mouse Monoclonal Antibody, (Santa Ouze sc-47778), 1:1,000 Anti-Mouse IgG (Goat), HRP Conjugated, (Santa Cruze sc-2005), 1:20,000 2nd Ab:

Detection period: Chemi-Lumi One L, 1 min. LAS-3000 High mode Detector:

Expose time: 30 min.

Detection of transcription factor of SREBP-1 and ChREBP

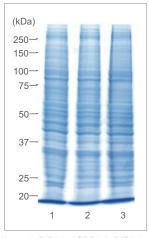
Transcription factor of SREBP-1 and ChREBP are detected after extraction of proteins such as nucleus or cytoplasm with RIPA Buffer.

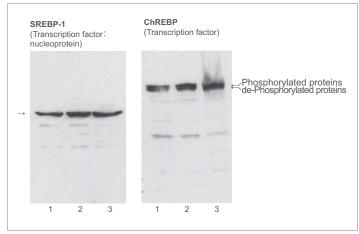
CBB Stain

(Stained with CBB Stain One)

Western blotting

(Blottiong: Blocking One, Detection: Chemi-Lumi One L)





Lane 1: RIPA (w/ SDS), 2: RIPA (w/o SDS), 3:B Company (w/ SDS)

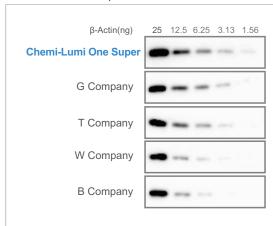
Data courtesy of associate professor Tatsuya Moriyama, Faculty of Agriculture, Kinki University

Chemi-Lumi One Super

- Detects proteins at Mid-femtogram level with low background
- Rapid substrate processing of blot
- Applicable extention of exposure time and detectable lower expression level proteins

Comparison of sensitivity with competitors

Chemi-Lumi One Super is the most sensitive of competitors under the above consition, and its expore time is only 1 min., while others are required 5 min.



<Condition>

10% PAGE gel Gel: Wash: 0.1% t-TBS, pH7.4 Blocking: Blocking One

Anti-β-Actin Mouse Monoclonal Antibody, (Santa Cruze sc-47778), 1:2,000 1st Ab: 2nd Ab: Anti-Mouse IgG (Goat), HRP Conjugated, (Santa Cruze sc-2005), 1:30,000

Detection period: Chemi-Lumi One Super, 1 min.

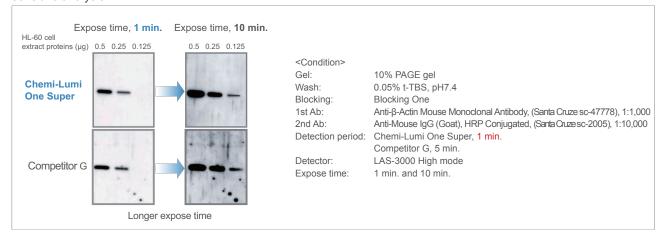
Competitor G, T, W, B 5 min.

Detector: LAS-3000 High mode

Expose time: 5 min.

Comparison of background

Chemi-Lumi One Super performs under lower background, so users enable expose time to be longer for achieving more sensitive analysis.

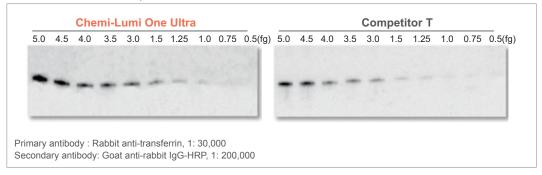


Chemi-Lumi One Ultra

- » The most sensitive in Chemi-Lumi One Series
- » Longer signal duration
- » Applicable wider experimental condition due to low background

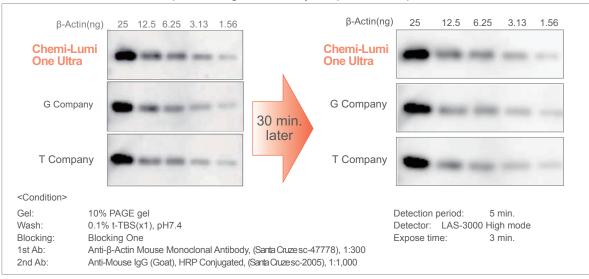
Comparison of sensitivity with competitors 1

Chemi-Lumi One Ultra is an extremely sensitive chemiluminescent substrate. Western blot of identical transferrin samples. The membranes were incubated with substrate that was prepared according to the manufacturers' instructions. The membranes were exposed to film for 2 minutes.



Comparison of sensitivity with competitors 2

Chemi-Lumi One Ultra shows equal to or higher sensitivity compared to competitors'.



Comparison of Abs concentration

Due to low background, Chemi-Lumi One Ultra is applicable to wide range of primary antibodies, and makes it easy to optimize condition.

Protein conc. from Jurkat cell extract

100 50 25 12.5 6.25

Antibody conc.

1: 1,000

1: 5,000

<Condition>

 Gel:
 10% PAGE gel

 Wash:
 0.1% t-TBS(1x), pH7.4

 Blocking:
 Blocking One

1st Ab: Anti- PCNA Mouse Monoclonal Antibody, (Santa Cruze sc-56c)
2nd Ab: Anti-Mouse IgG (Goat) HRP, (Santa Cruze sc-2005), 1:100,000

Detection period: 5 min.

Detector: LAS-3000 High mode Expose time: 1:1,000, 3 min.

1:5,000, 5 min. 1:10,000, 8 min.

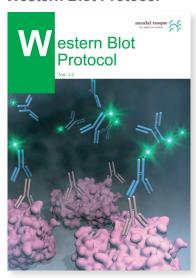
Ordering Information

Product Name	Storage	Product Number	PKG Size
Chemi-Lumi One L Luminol 250 ml, Peroxide 250 ml Sufficient substrate for 4,000 cm² of blotting membrane	0-10°C	07880-70	1 kit
Chemi-Lumi One Super Luminol 50 ml, Peroxide 50 ml Sufficient substrate for 1,000 cm² of blotting membrane	0-10°C	02230-30	1 kit
Chemi-Lumi One Ultra Luminol 50 ml, Peroxide 50 ml Sufficient substrate for 1,000 cm² of blotting membrane	0-10°C	11644-40	1 kit

[Patents]

Chemi-Lumi One Ultra is manufactured and patented by Cyanagen s.r.l and protected by US7803573; EP1962095; US7855287; EP1950207 US2012009603(A1); CA2742025; EP2405016 and foreign equivalents and other pending patents

Western Blot Protocol



Western Blot Protocol covering

- 1) Transfer
- 2) Confirming Transfer
- 3) Blocking
- 4) Detection
- 5) Western Blot Stripping

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