



Clarity and Clarity Max Western ECL Substrates

The Clear Choice in Chemiluminescent Western Blot Detection



Clarity and Clarity Max Western ECL Substrates

Get Clarity.

The Clear Choice in Chemiluminescent Western Blot Detection



Highest level of sensitivity
Low-femtogram level sensitivity

Ideal for digital and film-based imaging

Excellent sensitivity

Very low background levels

Works with any HRP-compatible secondary antibody

Compatible with nitrocellulose, PVDF, and LF PVDF membranes

1-year shelf life at room temperature

Extremely long signal duration

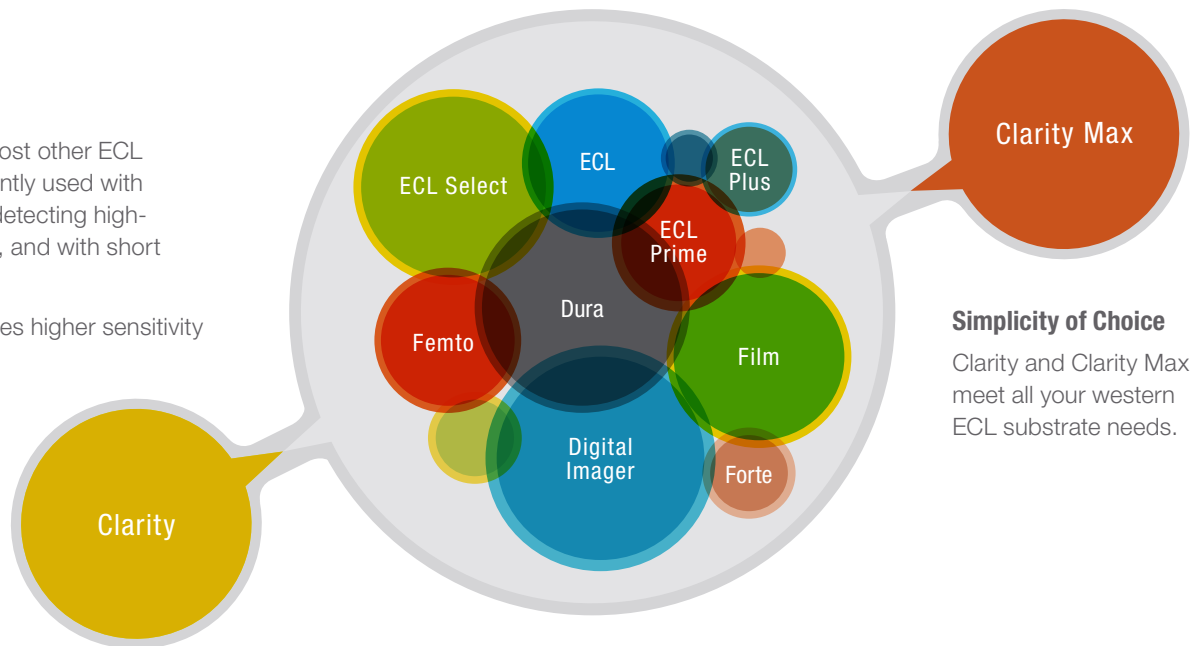
Allows optimization through multiple exposures



Versatility

Clarity Substrate replaces most other ECL substrates. It can be confidently used with film and digital imagers, for detecting high- and low-expressing proteins, and with short and long exposure times.

Clarity Max Substrate provides higher sensitivity for low-expressing proteins.



Simplicity of Choice

Clarity and Clarity Max meet all your western ECL substrate needs.



Clarity Western ECL Substrate

Clarity Substrate exhibits excellent visual limit of detection versus other commonly used ECL substrates. Comparative studies were conducted with Thermo Fisher Scientific's ECL Plus, SuperSignal West Dura, and SuperSignal West Pico, as well as GE Healthcare's ECL. When factoring in background intensity levels, analysis of western blots reveals Clarity Western ECL Substrate's superior signal-to-noise ratio and signal duration versus the market-leading chemiluminescent substrates (Figures 1 and 2).

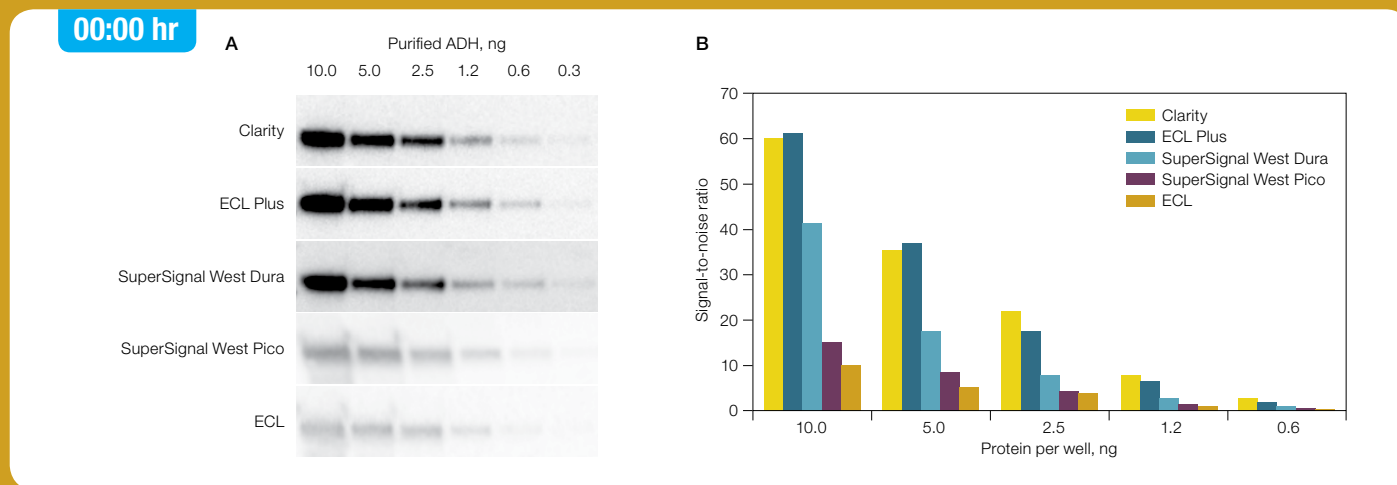


Fig. 1. Comparison of chemiluminescent substrate sensitivity. **A**, five different western blots were loaded with the same protein loads of purified alcohol dehydrogenase (ADH). Blots were incubated with substrates per manufacturer recommendations, then imaged for 10 sec on the ChemiDoc MP Imaging System. **B**, the signal-to-noise ratio for each band is depicted in bar graph form. Clarity and ECL Plus provided the best signal-to-noise ratios across all protein loads.

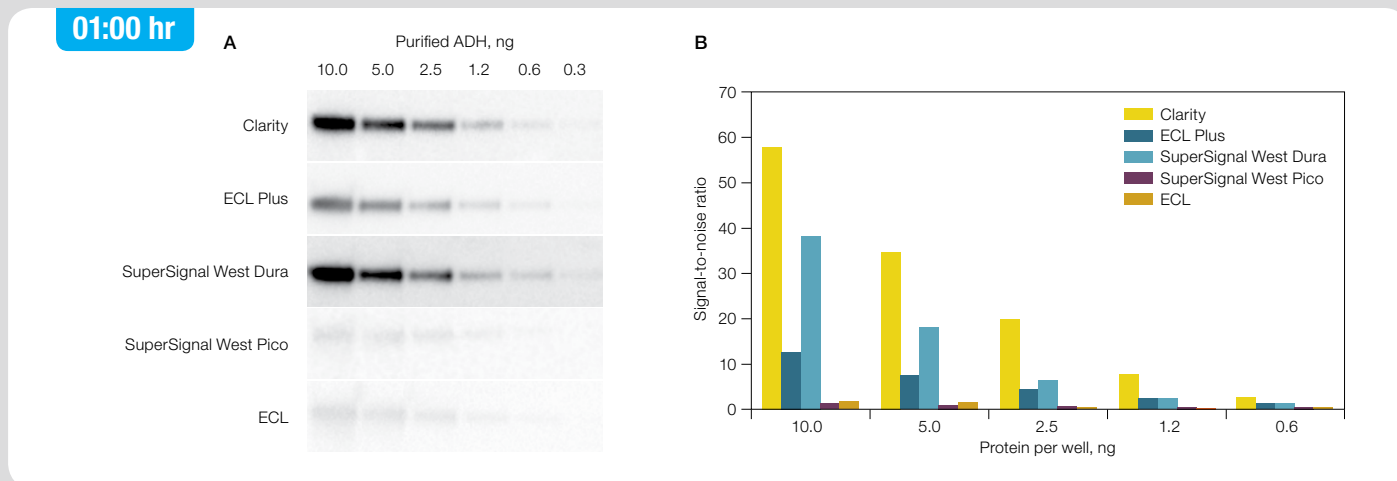


Fig. 2. Comparison of chemiluminescent substrate signal intensity. **A**, the same five blots were incubated with substrates per manufacturer recommendations, then after an hour were imaged for 30 sec on the ChemiDoc MP Imaging System; **B**, the signal-to-noise ratio for each band is depicted in bar graph form. Clarity and SuperSignal West Dura provided superior signal-to-noise ratios across all protein loads, whereas other competitor substrates exhibited a considerable loss in signal.



Clarity Max Western ECL Substrate

Clarity Max Substrate exhibits superior visual limit of detection versus other commonly used high-performance ECL substrates on the market. Comparative studies were performed with GE Healthcare's ECL Select and ECL Prime and Thermo Fisher Scientific's SuperSignal West Femto and SuperSignal West Dura (Figure 3).

Choose Clarity Max when you need more sensitivity than Clarity provides (Figure 4).

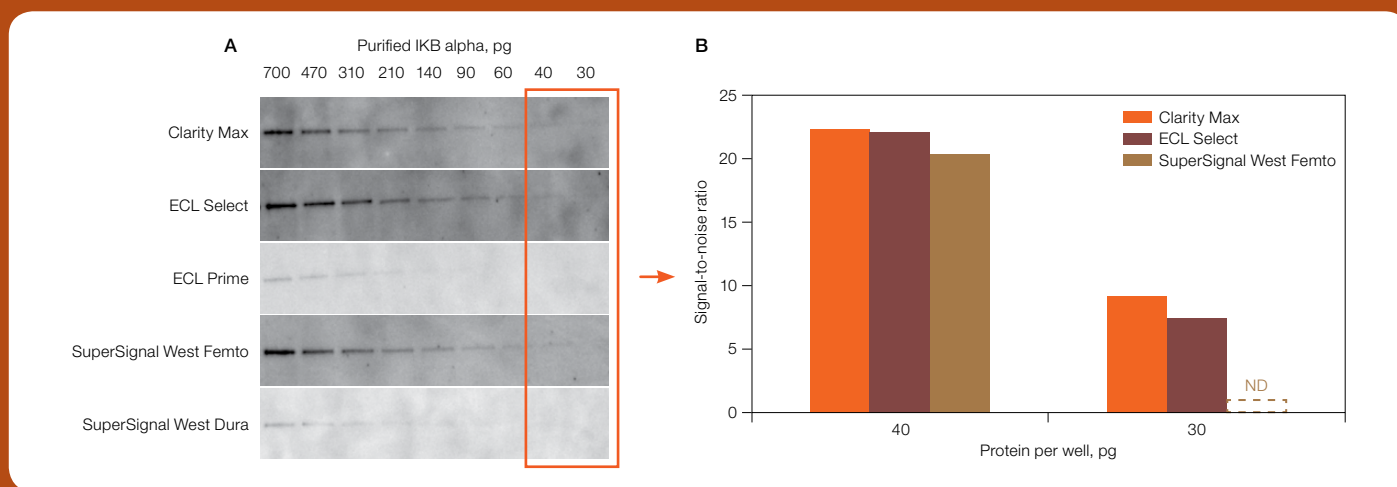


Fig. 3. Comparison of chemiluminescent substrate signal intensity. **A**, five different western blots were loaded with the same protein loads of purified IKB alpha. Blots were incubated with substrates per manufacturer recommendations, then imaged for 70 sec on the ChemiDoc Touch Imaging System. **B**, the signal-to-noise ratios for the bands in the boxed area for Clarity Max, ECL Select, and SuperSignal West Femto are depicted in bar graph form. Clarity Max and ECL Select provided the best signal-to-noise ratios across all protein loads. ND, not determined; signal at 30 pg for SuperSignal West Femto was not detectable above background noise.

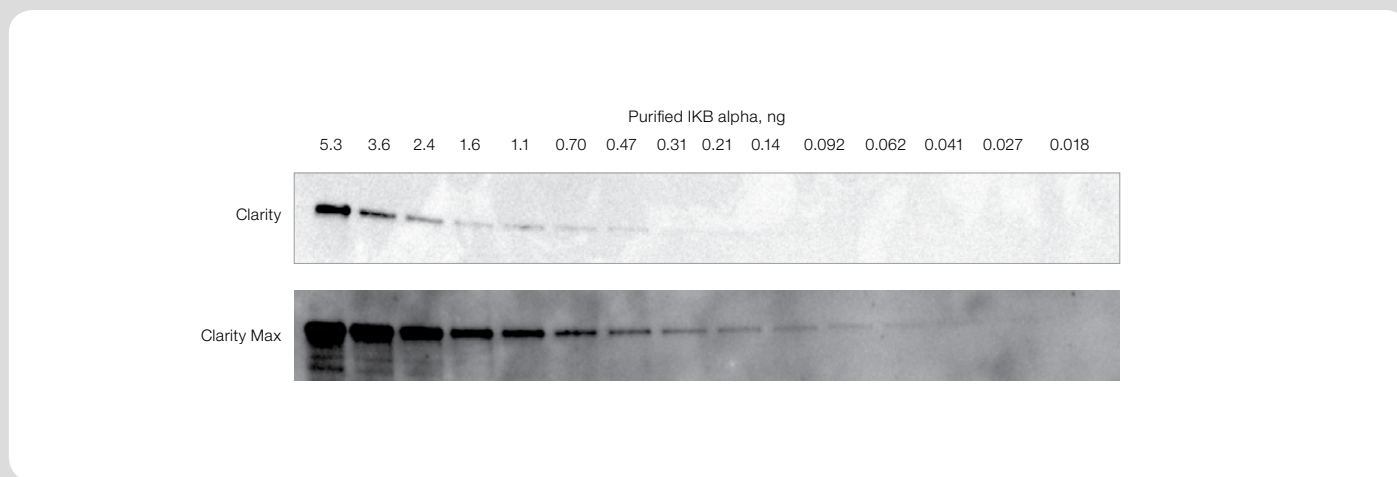





Fig. 4. Comparison of chemiluminescence for Clarity and Clarity Max Substrates. Blots were incubated with substrates as recommended and imaged for 70 sec on the ChemiDoc Touch Imaging System. Clarity Max Substrate provides additional sensitivity, allowing visualization of the lower protein concentrations.




Ordering Information

Catalog #	Description
Clarity	
1705060	Clarity Western ECL Substrate , 200 ml, contains 100 ml Clarity Western Peroxide Reagent and 100 ml Clarity Western Luminol/Enhancer Reagent
1705061	Clarity Western ECL Substrate , 500 ml, contains 250 ml Clarity Western Peroxide Reagent and 250 ml Clarity Western Luminol/Enhancer Reagent
Clarity Max	
1705062	Clarity Max Western ECL Substrate , 100 ml, contains 50 ml Clarity Max Western Peroxide Reagent and 50 ml Clarity Max Western Luminol/Enhancer Reagent
EveryBlot Blocking Buffer	
12010020	EveryBlot Blocking Buffer , 500 ml
12010947	Trial Size EveryBlot Blocking Buffer , 50 ml
Protein Standards	
1610373	Precision Plus Protein All Blue Prestained Standards , 500 µl, 50 applications
1610363	Precision Plus Protein Unstained Standards , 1 ml, 100 applications
1610385	Precision Plus Protein WesternC Blotting Standards , 50 applications
Buffers	
1610732	10x Tris/Glycine/SDS , 1 L
1610747	4x Laemmli Sample Buffer , 10 ml
Electrophoresis Cells	
1656001	Criterion Cell , includes electrophoresis buffer tank, lid with power cables, 3 sample loading guides (12+2-well, 18-well, 26-well)
1658004	Mini-PROTEAN Tetra Cell for Mini Precast Gels , 4-gel vertical electrophoresis system, includes electrode assembly, companion running module, tank, lid with power cables, mini cell buffer dam

Catalog #	Description
Imaging Systems	
12003154	ChemiDoc MP Imaging System , blot and gel imaging system, UV/visible light imaging, chemiluminescence, 5 fluorescence channels (red, green, blue, far red, NIR). Includes internal computer, 12" touch-screen display, Image Lab Touch Software, blot/UV/Stain-Free sample trays
12003153	ChemiDoc Imaging System , blot and gel imaging system, UV/visible light imaging, chemiluminescence, upgradeable for multiplex fluorescence detection. Includes internal computer, 12" touch-screen display, Image Lab Touch Software, blot/UV/Stain-Free sample trays
Blotting System	
1704150	Trans-Blot Turbo Transfer System , blotting instrument, includes base, 2 cassettes to hold 1–2 midi or up to 4 mini blotting sandwiches, blot roller
Trans-Blot Turbo Ready-to-Use Transfer Packs	
1704156	Trans-Blot Turbo Transfer Packs , mini, PVDF, pkg of 10
1704157	Trans-Blot Turbo Transfer Packs , midi, PVDF, pkg of 10
1704158	Trans-Blot Turbo Transfer Packs , mini, nitrocellulose, pkg of 10
1704159	Trans-Blot Turbo Transfer Packs , midi, nitrocellulose, pkg of 10
Trans-Blot Turbo RTA (Ready-to-Assemble) Transfer Kits	
1704270	Trans-Blot Turbo RTA Transfer Kit , mini, nitrocellulose, for 40 blots
1704271	Trans-Blot Turbo RTA Transfer Kit , midi, nitrocellulose, for 40 blots
1704272	Trans-Blot Turbo RTA Transfer Kit , mini, PVDF, for 40 blots
1704273	Trans-Blot Turbo RTA Transfer Kit , midi, PVDF, for 40 blots
1704274	Trans-Blot Turbo RTA Transfer Kit , mini, LF PVDF, for 40 blots
1704275	Trans-Blot Turbo RTA Transfer Kit , midi, LF PVDF, for 40 blots
LF PVDF, low fluorescence polyvinylidene difluoride.	

Description	  		
	10-Well 30 µl	10-Well 50 µl	12-Well 20 µl
Mini-PROTEAN TGX Stain-Free Precast Gels			
10%	4568033	4568034	4568035
4–15%	4568083	4568084	4568085
4–20%	4568093	4568094	4568095
Any kD	4568123	4568124	4568125

All Mini-PROTEAN Gels are available in packages of ten.

Description	  		
	12+2-Well* 45 µl	18-Well 30 µl	26-Well 15 µl
Criterion TGX Stain-Free Precast Gels**			
10%	5678033	5678034	5678035
4–15%	5678083	5678084	5678085
4–20%	5678093	5678094	5678095
Any kD	5678123	5678124	5678125

* Reference wells accommodate 15 µl of markers/standards.

** Criterion TGX Stain-Free Gels are sold as single gel packages. Additional gel formats are available. See bio-rad.com/CriterionTGX for all gel formats.

BIO-RAD, MINI PROTEAN, and TRANS-BLOT are trademarks of Bio-Rad Laboratories, Inc. in certain jurisdictions. All trademarks used herein are the property of their respective owner. Clarity Max Western ECL Substrate is manufactured by Cyanagen Srl and is the subject of patent application numbers US7855287, EP1950207, US9040252, AU2011202658, CA2742025, US8129136, and EP1962095, together with other equivalent granted patents and patent applications in other countries like CN102313732. TGX Stain-Free Precast Gels are covered by U.S. Patent Numbers 7,569,130 and 8,007,646.

BIO-RAD

**Bio-Rad
Laboratories, Inc.**

Life Science
Group

Web site bio-rad.com **USA** 1 800 424 6723 **Australia** 61 2 9914 2800 **Austria** 43 01 877 89019 **Belgium** 32 03 710 53 00 **Brazil** 55 11 3065 7550 **Canada** 1 905 364 3435 **China** 86 21 6169 8500 **Czech Republic** 36 01 459 6192 **Denmark** 45 04 452 10 00 **Finland** 35 08 980 422 00 **France** 33 01 479 593 00 **Germany** 49 089 3188 4393 **Hong Kong** 852 2789 3300 **Hungary** 36 01 459 6190 **India** 91 124 4029300 **Israel** 972 03 963 6050 **Italy** 39 02 49486600 **Japan** 81 3 6361 7000 **Korea** 82 2 3473 4460 **Mexico** 52 555 488 7670 **The Netherlands** 31 0 318 540 666 **New Zealand** 64 9 415 2280 **Norway** 47 0 233 841 30 **Poland** 36 01 459 6191 **Portugal** 351 21 4727717 **Russia** 7 495 721 14 04 **Singapore** 65 6415 3188 **South Africa** 36 01 459 6193 **Spain** 34 091 49 06 580 **Sweden** 46 08 555 127 00 **Switzerland** 41 0617 17 9555 **Taiwan** 886 2 2578 7189 **Thailand** 66 2 651 8311 **United Arab Emirates** 971 4 8187300 **United Kingdom** 44 01923 47 1301

