invitrogen™

The easiest protein electrophoresis for increased sample throughput applications

The E-PAGE™ *48* System revolutionizes protein separation and allows rapid, reproducible protein electrophoresis for medium to high sample throughput applications. With E-PAGE™ *48* System, you get:

- **Ease of use**—quick setup and separation of 48 samples or more in just 23 minutes
- **Fast loading**—compatible with multi-channel or robot loading
- **Efficient western blotting and staining**—optimized protocols and reagents

Easy to use, easy to expand

E-PAGE™ *48* 8% Gels are self-contained, horizontal pre-cast gels that provide 48 sample lanes and 4 marker lanes with a 3.2 cm separation length. E-PAGE™ *48* Gels are specifically designed for use in E-Base™ devices, which combine an electrophoresis base with a power source. To use, simply insert a gel into a Mother E-Base™ device, load your samples, and run (Figure 1). For higher throughput, you can connect up to three Daughter E-Bases™ to each Mother E-Base™ device (Figure 2) to run a total of 192 samples. Now you can get more results in fewer runs, saving time and effort.

Figure 1 — The easy-to-use E-PAGE™ *48* System

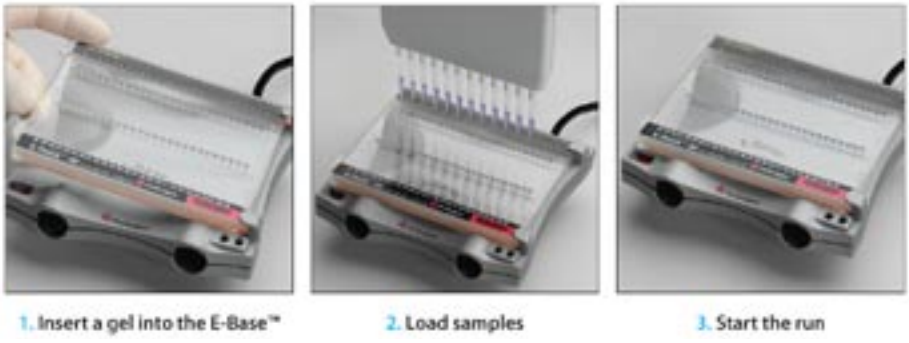
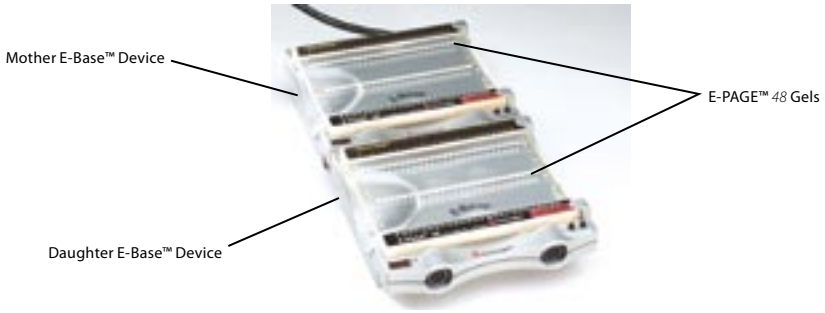


Figure 2 - Easily expand sample throughput using Daughter E-Base™ Devices



Convenient reagents and software ensure post-run analysis

The E-PAGE™ *48* 8% Gel offers a broad molecular weight separation range (Table 1). It's suitable for a variety of post-electrophoresis procedures such as western blotting (Figure 3) and protein staining (Figure 4). Pre-cut blotting membranes, blotting pads, filter papers, blotting roller, and incubation trays (Figure 5) are available to ensure optimal blotting results*. Optimized protocols for Coomassie® and fluorescent staining of proteins are provided to enhance E-PAGE™ staining results. The E-Editor™ v.2 software enables convenient sample lane grouping and alignment for easy band comparison and result interpretation. With the E-PAGE™ *48* System, high-throughput protein analysis has never been easier or more efficient.

Table 1 — Specifications of the E-PAGE™ *48* 8% Gel

	E-PAGE *48* 8% Gels
Cassette size	13.5 (l) x 10.8 (h) x 0.67 cm (w)
Gel thickness	3.7 mm
Gel volume	50 ml
Well depth	3 mm
Number of wells	48 + 4 markers
Well format	2 x 26
Well opening	3.6 mm x 2.2 mm
Running distance	32 mm
Run time	23 minutes
Space between well centers	4.5 mm
Max sample volume	15 µl
Max protein load	20 µg

Migration pattern of MagicMark™ XP Standard on an E-PAGE™ *48* 8% Gel

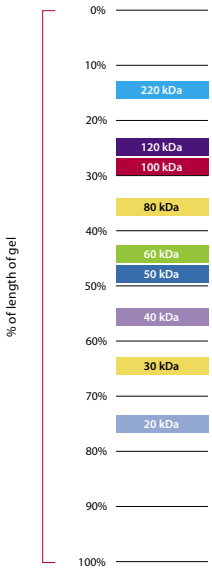
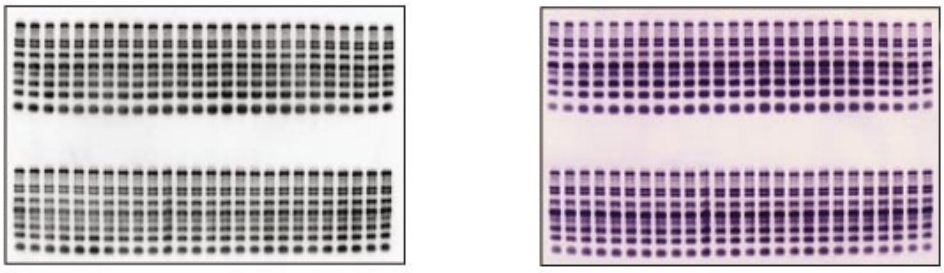
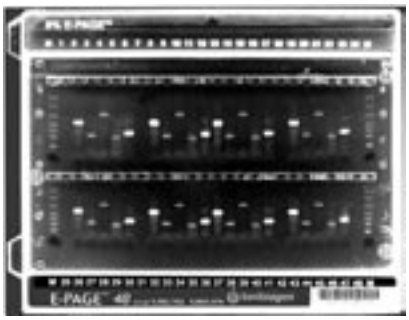


Figure 3 – Western blot results on E-PAGE™ *48* 8% Gels



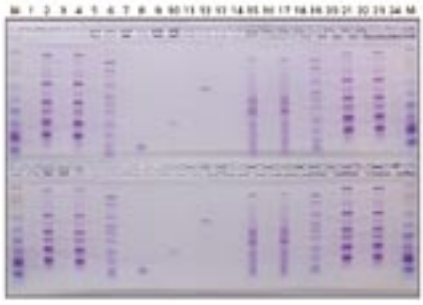
MagicMark™ XP Western Standard (5µl) was loaded into each well of an E-PAGE™ *48* 8% Gel and transferred to a pre-cut 0.2 µm nitrocellulose membrane (Cat. no. LC2009). The blot was probed with 1:1000 Anti-Xpress™ Antibody and detected using the WesternBreeze® Immunodetection Kit (anti-mouse) – Chemiluminescent (A) and Chromogenic (B) detection.

Figure 4 — Staining results of E-PAGE™ *48* 8% Gel



M: BenchMarkTM Fluorescent Standard
Lanes 2, 8, 13, 19, 26, 32, 37, 43:
Human kinase fusion protein (10 µl)
Lanes: 3, 9, 14, 20, 27, 33, 38, 44:
E. coli CAT fusion protein (10 µl)
Lanes: 4, 10, 15, 21,28, 34, 39, 45:
E. coli GUS fusion protein (10 µl)
Lanes: 5, 11, 16, 22, 29, 35, 40, 46:
E. coli calmodulin fusion protein (10 µl)
Lanes: 6, 12, 17, 23, 30, 36, 41, 47:
E. coli kinase D fusion protein (10 µl)

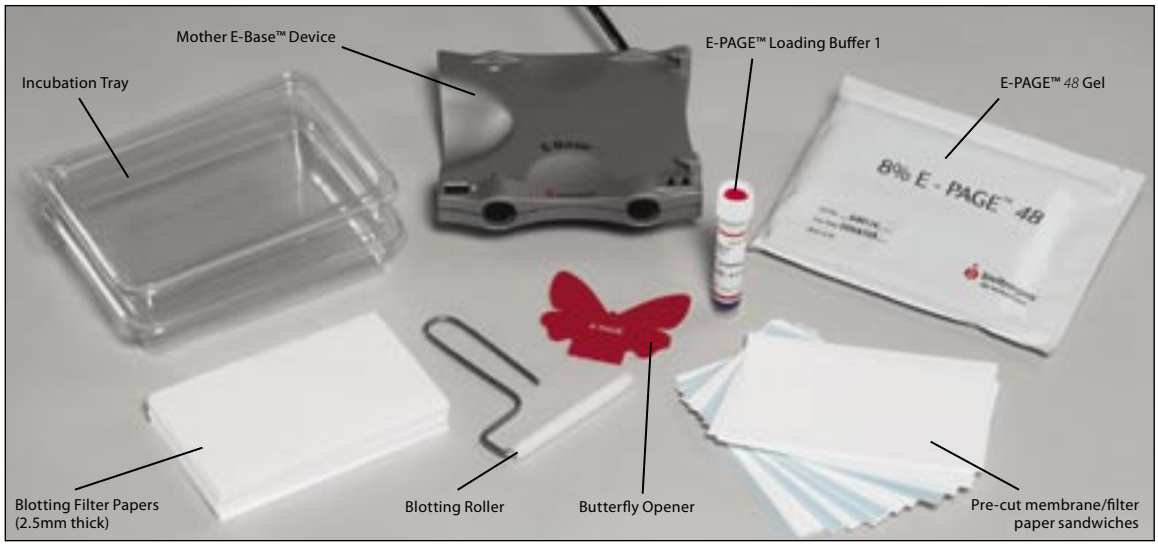
The Lumio-tagged expressed proteins were separated on an E-PAGE™ *48* 8% Gel and the entire gel cassette was visualized with a UV transilluminator using an ethidium bromide filter following the recommended protocol in the manual.



Lanes M: 5µl SeeBlue® Plus2 Pre-stained Standard
Lanes 2, 4, 21, 23: 10µl MagicMark™ XP Standard
Lanes 6 & 19: 2µl BenchMark™ His-tagged Standard
Lane 8: Lysozyme 200 ng
Lane 10: Carbonic anhdrase 200 ng
Lane 12: BSA 100 ng
Lanes 15 & 17: 5µl *E. coli* lysate

The gel was stained with Coomassie® R-250 following the recommended protocol in the E-PAGE™ *48* manual.

Figure 5 — E-PAGE™ *48* System and blotting products



Ordering information

For more information visit www.invitrogen.com/epage. Order the E-PAGE™ *48* System today.

Product	Quantity	Cat. no.
E-PAGE™ *48* 8% Starter Kit	1 kit	EPST48-08
includes 4 gels, one Mother E-Base™, Loading Buffer 1, one E-PAGE™ Blotting Pad, a Butterfly Opener, and SeeBlue® Plus2 Pre-Stained Standard		
E-PAGE™ *48* 8% gels	8 gels	EP048-08
includes 8 gels, Loading Buffer 1, one E-PAGE™ Blotting Pad, and a Butterfly Opener		
Mother E-Base™ device	1 unit	EB-M03
Daughter E-Base™ device	1 unit	EB-D03
E-Holder™ platform	2 units	EH-03
E-PAGE™ Loading Buffer 1	4.5 ml	EPBUF-01
NuPAGE® Sample Reducing Agent (10x)	250 µl 10 ml	NP0004 NP0009
SeeBlue® Plus2 Pre-Stained Standard	500 µl	LC5925
MagicMark™ XP Western Standard	250 µl	LC5602
Nitrocellulose/Filter Paper, 8.5 x 13.5 cm size, 0.2 µm pore	16/pk	LC2009
Nitrocellulose/Filter Paper, 8.5 x 13.5 cm size, 0.45 µm pore	16/pk	LC2006
Invitrolon™ PVDF/Filter Paper, 8.5x 13.5 cm size, 0.45 µm pore	16/pk	LC2007
Blotting Filter Paper, 2.5 mm thick	50/pk	LC2008
Blotting Roller, 8.6 cm wide	1 unit	LC2100
Incubation Tray, 10 x 14 x 3 cm	8 trays and lids/pk	LC2102
NuPAGE® Transfer Buffer (20X)	1 L	NP0006-1
NuPAGE® Antioxidant	15 ml	NP0005
E-PAGE™ Blotting Pad	4 pads	LC2101
E-Editor™ 2.0 Software	FREE *visit www.invitrogen.com/epage to download*	
Related Products:		
WesternBreeze® Immunodetection Chemiluminescent Kits		
Anti-Mouse	1 kit	WB7104
Anti-Rabbit	1 kit	WB7106
WesternBreeze® Immunodetection Chromogenic Kits		
Anti-Mouse	1 kit	WB7103
Anti-Rabbit	1 kit	WB7105
Expressway™ HTP Cell-Free *E. coli* Expression Kit	5x96 rxns	K9900-80
Lumio™ Green Detection Kit	1 kit	LC6090
BenchMark™ Fluorescent Standard	125 µl	LC5928

* Note: a semi-dry transfer apparatus is required to blot an intact E-PAGE™ Gel.

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Corporate headquarters:
1600 Faraday Avenue • Carlsbad, CA 92008 USA • Tel: 760 603 7200 • Fax: 760 602 6500 • Toll Free Tel: 800 955 6288 • E-mail: tech_service@invitrogen.com • www.invitrogen.com

European headquarters:
Invitrogen Ltd • Inchinnan Business Park • 3 Fountain Drive • Paisley PA4 9RF, UK • Tel: +44 (0) 141 814 6100 • Fax: +44 (0) 141 814 6260 • E-mail: eurotech@invitrogen.com