

fast protein transfer at your fingertips

Thermo Scientific Pierce G2 Fast Blotter



Combining high performance protein transfer with speed, the Thermo Scientific™ Pierce™ G2 Fast Blotter allows for the fast and efficient transfer of proteins ranging in sizes of 10 to 300 kDa from polyacrylamide gel to blotting membrane.

Traditional blotting techniques often require transfer times of one hour to overnight to achieve good transfer efficiency. When combined with the Thermo Scientific™ Pierce™ 1-Step Transfer Buffer, the Pierce G2 Fast Blotter delivers similar transfer performance

in as few as 5-10 minutes without gel pre-equilibration. The system has been tested using pre-cast SDS-PAGE gels from several sources as well as some commonly used homemade gel formulations. The Pierce G2 Fast Blotter can also be used for standard semi-dry transfer protocols with Towbin Transfer buffer.

The Pierce G2 Fast Blotter has an easy-to-use color LCD menu touchscreen interface for quick programming of the transfer time based on the number and size of gels. Or create your own custom transfer settings.

Molecular weight range	Low (<25kDa)	Mid (25-150kDa)	High (>150kDa)	High (>150kDa)
Gel type	Pierce Precise Protein Gel (Tris-glycine)	NuPage™ 4-12% Bis-Tris Gel	Criterion™ 4-20% Tris-HCl Gel	NuPage™ 4-12% Bis-Tris Gel
Membrane	Nitrocellulose	Nitrocellulose	PVDF	PVDF
Target protein and size	Cyclophilin B (21kDa)	PLK-1 (67kDa)	Ecm29 (205kDa)	mTOR (289kDa)

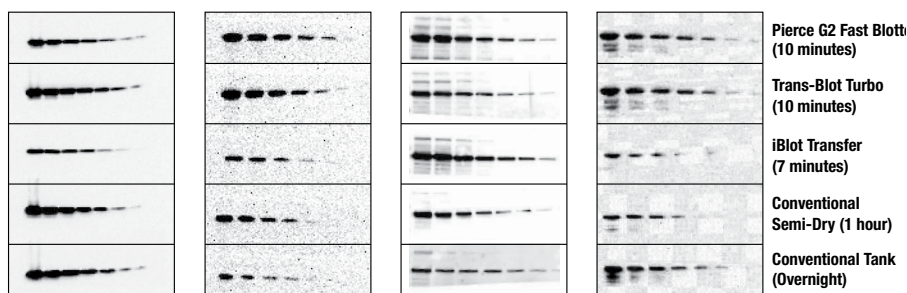


Figure 1. The Thermo Scientific Pierce G2 Fast Blotter allows rapid transfers of low, medium, and high molecular weight proteins. HeLa lysate was serially diluted, prepared for SDS-PAGE, and electrophoresed according to the gel suppliers' recommendations. The proteins were then transferred from gel to nitrocellulose or PVDF membrane using the following techniques: Trans-Blot™ Turbo™ Transfer device with appropriate Trans-Blot Turbo Transfer Pack for 10 minutes; Pierce G2 Fast Blotter with Pierce 1-Step Transfer Buffer, filter paper and membrane for 10 minutes; iBlot™ transfer with appropriate transfer stack for 7 minutes; classical semi-dry using Towbin transfer buffer (25 mM Tris, 139 mM glycine, 20% methanol), appropriate filter paper and membrane for 1 hour (25V constant); or classical overnight tank transfer using Towbin transfer buffer (30V constant, 16 hours). Membranes were then cut into thirds and the top part of the membranes were probed with Thermo Scientific™ anti-mTOR Antibody (Product # PA1-518), the middle part of the membranes were probed with Thermo Scientific anti-PLK-1 Antibody (Product # MA1-848), and the bottom part of the membranes were probed with Thermo Scientific anti-Cyclophilin B Antibody (Product # PA1-027A). Membranes were processed using Thermo Scientific™ Pierce™ Fast Western Blot Kits, SuperSignal™ West Dura Kits (Product # 35075). The resulting blots were simultaneously imaged using the Thermo Scientific™ mECL™ Imager and densitometry was determined using Thermo Scientific™ mImageAnalysis™ Software.



Pierce G2 Fast Transfer Blotter Highlights:

- **Fast** – transfer proteins in 5–10 minutes
- **Excellent transfer efficiency** - transfer low, medium and high MW proteins (10-300 kDa) equivalent to or better than conventional semi-dry or wet transfer methods
- **Integrated power supply** – allows consistent high efficiency protein transfer
- **Easy-touch programming** – access pre-programmed transfer methods based on the gel number, gel size and molecular weight range of proteins using color LCD menu touchscreen. Easily create, run and save custom transfer methods, too.
- **Convenient** – simultaneously transfer up to four mini-sized gels or two midi-sized gels
- **Versatile** – use Pierce 1-Step Transfer Buffer for fast blotting programs or Towbin transfer buffer for conventional semi-dry transfer methods

Pierce 1-Step Transfer Buffer Highlights:

- **Safe and environmentally friendly** – Pierce 1-Step Transfer Buffer contains no alcohol
- **Economical** – transfer up to 20 mini-sized gels or 10 midi-sized gels with one 1L bottle. No special consumables required; simply use Western blotting filter paper and membrane of choice.

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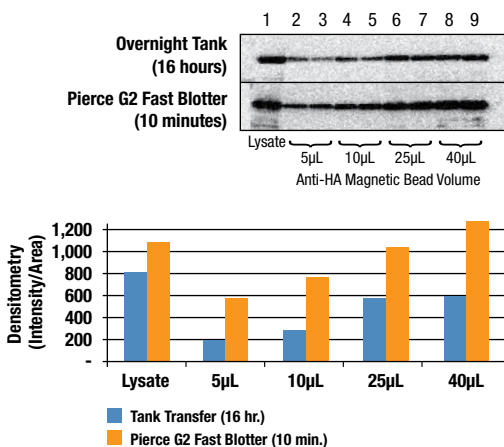


Figure 2. Thermo Scientific Pierce G2 Fast Blotter provides efficient protein transfer in 10 minutes. GST-PI3K-SH2-HA (37kDa) was expressed in *E. coli* and purified with varying volumes of Thermo Scientific™ Anti-HA Magnetic Beads (Product # 88836). Resulting samples were prepared for SDS-PAGE and electrophoresed. The proteins were then transferred from gel to nitrocellulose membrane using either classical overnight tank transfer with Towbin transfer buffer (25 mM Tris, 139 mM glycine, 20% methanol) or Pierce 1-Step Transfer Buffer and the Pierce G2 Fast Blotter (10 minutes). Membranes were probed with anti-HA antibody for 1 hour, washed 5 times, probed with goat anti-mouse HRP for 30 minutes, washed 5 times and incubated in Thermo Scientific™ SuperSignal™ West Femto Substrate (Product # 34096). The resulting blots were simultaneously imaged using the mECL Imager and densitometry determined using mImageAnalysis Software.

Ordering Information

Product #	Description	Pkg. Size
62288	Pierce G2 Fast Blotter Sufficient for semi-dry transfer of proteins from polyacrylamide gels to nitrocellulose or PVDF membranes. Includes: Pierce G2 Fast Blotter Control Unit, 1 device Pierce G2 Fast Blotter Cassette, 1 device Power Cord with C/13 Connector, 1 device Western Blot Roller, 1 device Quick Start Guide	1 unit
62289*	Pierce G2 Fast Blotter Cassette	1 unit
62291*	Pierce G2 Fast Blotter Control Unit	1 unit
84747*	Western Blot Roller	1 unit
84855*	Power Cord with C/13 Connector, China	1 cord
84856*	Power Cord with C/13 Connector, Japan	1 cord
84857*	Power Cord with C/13 Connector, Australia	1 cord
84858*	Power Cord with C/13 Connector, North America	1 cord
84859*	Power Cord with C/13 Connector, Continental Europe	1 cord
84860*	Power Cord with C/13 Connector, United Kingdom	1 cord
84731*	1-Step Transfer Buffer, 1L Sufficient for 20 mini blots at 50mL each	1L
84783	Western Blotting Filter Paper, 7cm x 8.4cm Thickness: 0.83mm	100 sheets
84784	Western Blotting Filter Paper, 8cm x 13.5cm Thickness: 0.83mm	100 sheets

*Replacement for G2 Blotter components that come with the unit.



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