

WB

ATTO Western Blotting Semi Dry Blotting System

- WSE-4115 **Built-in Power Supply unit**
PoweredBlot-Ace
- WSE-4020 **For 2 mini gels**
HorizeBLOT 2M-R
- WSE-4040 **For 4 mini gels**
HorizeBLOT 4M-R



WSE-4115



WSE-4020



WSE-4040

50 years with Electrophoresis

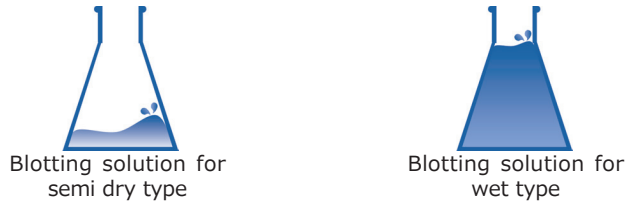


What's Semi Dry Blotting?

Western blotting is the basic experimental method to specifically and high-sensitively detect desired component from protein sample. It is roughly divided into 2 types; "Semi Dry type" and "Wet type (Tank type)". We, ATTO, recommend and provide Semi Dry type blotting system based on the following merits.

Merit ① Less Amount of Blotting Solution

• Semi dry type is the method requiring small amount of blotting solution in which immerses filter. (Wet type needs more blotting solution for immersing whole of filter, gel, membrane and electrode.)



Merit ② Excellent Operability

• The step of semi dry type; stacking filter, gel and membrane horizontally between electrodes before blotting is simpler than that of wet type.

(In the case of wet type, stacked filter, gel and membrane sometimes get out of place because they are set vertically after stacked.)

Merit ③ Small Heating Value

• In the case of semi dry type, heating value is small because it requires small current for blotting.
(In the case of wet type, heating value is large because it requires relatively large current value.)

Merit ④ Short Operating Time

• Operation of semi dry type blotting is completed in a short time.
(Wet type blotting needs a long time to operate.)

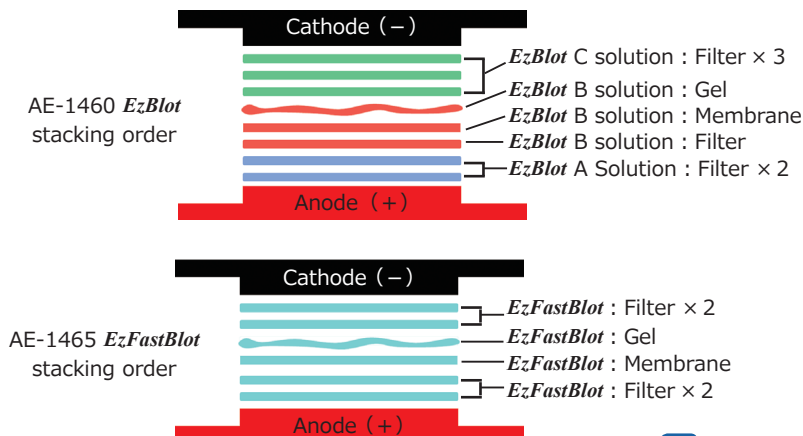
Merit ⑤ More Effective With Optimized Blotting Solution

• ATTO recommend AE-1460 *EzBlot* for only semi dry blotting whose component is made of 3 types of solution and AE-1465 *EzFastBlot* for high speed blotting whose component is made of 1 type of solution.

• Transfer efficiency is improved by using optimized blotting solution* in the case of semi dry type.

*Kyhse-Andersen J et al., (1984) Electroblothing of multiple gels: a simple apparatus without buffer tank for rapid transfer of proteins from polyacrylamide to nitrocellulose. *J Biochem Biophys Methods*.10:203-9.

※ Blotting solution such as 25mM Tris, 192mM Glycine, 20% Methanol is not recommended to use for semi dry type. Transfer efficiency is considerably deteriorated because these solution are not optimized for semi dry type.



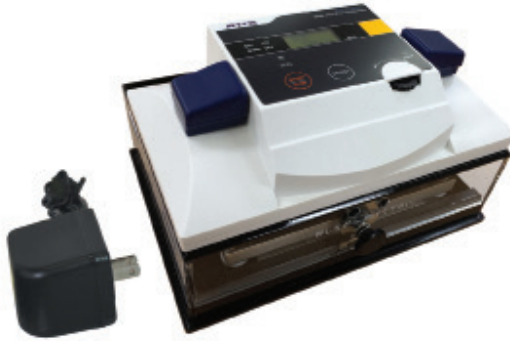
The difference of transfer efficiency of each buffer



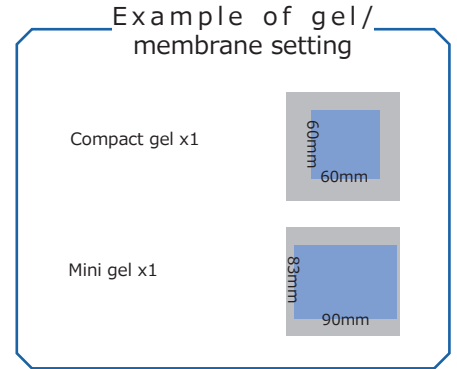
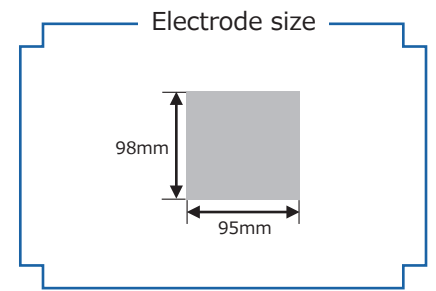
Tris-Glycine-MeOH solution AE-1460 *EzBlot*
 •• These images show that AE-1460 *EzBlot* is more effective in semi dry type blotting.

Built-in Power Supply Unit Type Blotting System

WSE-4115 PoweredBlot-Ace



ATTO Western Blotting System



INTRODUCTION

PoweredBlot-Ace

HorizeBLOT 2M-R/4M-R

Specification

Related Products



High speed mode without power supply equipment

Simple operation just with selecting mode

Built-in power supply unit, Save space

■ 2 selectable mode ;"Standard mode" and "Rapid mode"

- STD (Standard) mode (Constant voltage 12V [equivalent to constant current 2mA/cm²])
 - Blotting time : 30-60 min
 - Timer : Selectable range is 1-200min.
- RAPID mode (Constant voltage 24V [equivalent to constant current 7-8mA/cm²])
 - Blotting time : 10-30min
 - Timer : Selectable range is 1-200min.

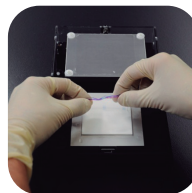
■ Required space for setting main unit; A5 size (148mm × 210mm)

■ spring structure in the upper electrode unit which enable to push the stack with suitable pressure

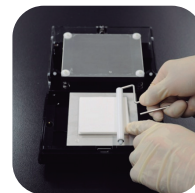
How to use



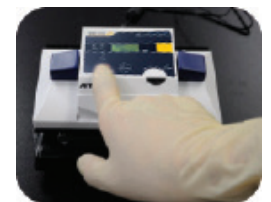
① Remove lid as power supply unit.



② Separate the lower electrode from the upper, and stack filter, gel and membrane on the lower.



③ Use attached roller for removing air bubbles.



④ Select a mode and press RUN button. The operation starts.

Product component

Product code	Model	Name
2322490	WSE-4115	PoweredBlot-Ace
2322491	WSE-4115 · C	PoweredBlot-Ace (With Compact size P+ membrane & Filter)
2322492	WSE-4115 · M	PoweredBlot-Ace (With Mini size P+ membrane & Filter)

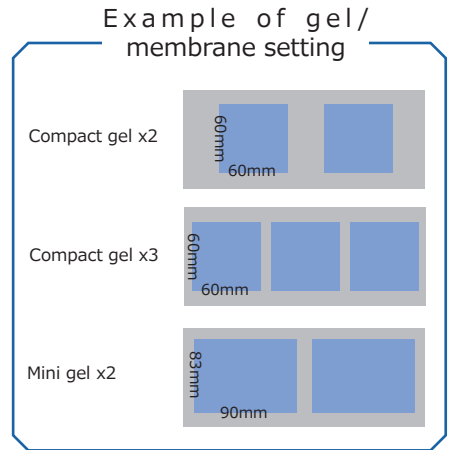
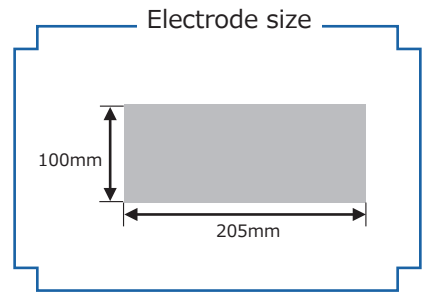
Semi Dry Blotting System (For 2 Mini gel)

WSE-4020 HorizeBLOT 2M-R



High speed blotting

Improved operability and reproducibility



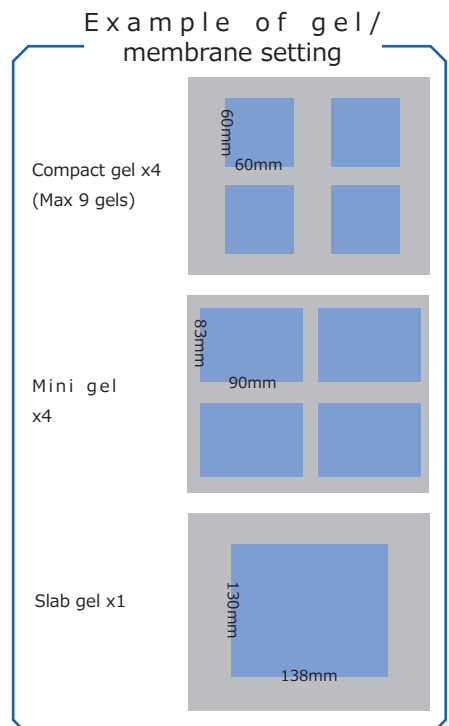
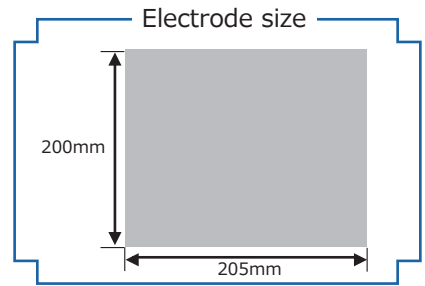
Semi Dry Blotting System (For 4 Mini gel)

WSE-4040 HorizeBLOT 4M-R



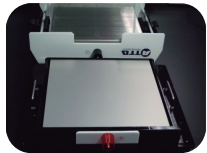
High speed blotting

Suitable for Large gel and membrane

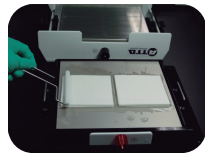


- Spring structure in the upper electrode unit which enable to push the stack with suitable pressure
- Easy setting with aligning part of main unit for adjusting of the cover and base
- Latch method for fixing the upper and lower electrode; preventing filter, membrane and gel from slipping out of position
- Reverse connection prevention structure of lead wire

How to use



① Remove the cover (upper electrode) from the base (lower electrode).



② Stack filter, membrane and gel on the lower electrode, and remove air bubbles with roller. (* Please refer to "Tips".)



③ Set the upper electrode on the lower and connect power supply equipment with lead wire.

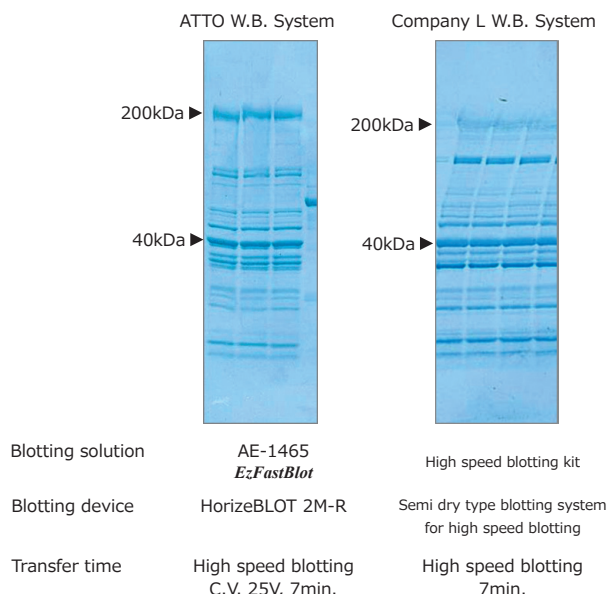


④ Press RUN button of the power supply equipment and start blotting.

Product component

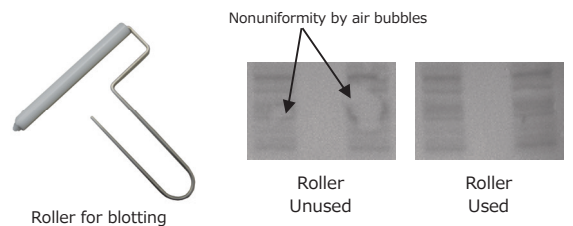
Product code	Model	Name
2322460	WSE-4020	HorizeBLOT 2M-R
2322461	WSE-4020 · M	HorizeBLOT 2M-R (With Mini slab size P+ membrane & Filter)
2322470	WSE-4040	HorizeBLOT 4M-R
2322471	WSE-4040 · M	HorizeBLOT 4M-R(With Mini slab size P+ membrane & Filter)
2322479	—	Roller for blotting
2322462	—	Power lead wire for HorizeBLOT-R

Comparative data



∴ This data shows that transfer efficiency of ATTO Western Blotting System is higher than that of the comparison in high polymeric

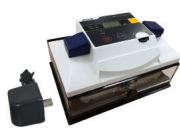
TIPS



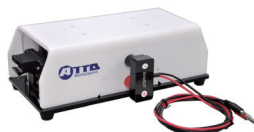
- Air bubbles between filter, membrane and gel may cause problems such as nonuniformity.
- Using roller for blotting can remove easily air bubbles.
- The following products include roller standardly.
WSE-4115 PoweredBlot-Ace
WSE-4020 HorizeBLOT 2M-R
WSE-4040 HorizeBLOT 4M-R

Specification

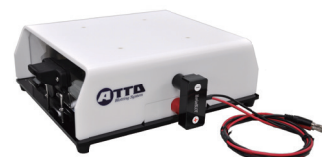
Built-in power supply unit type
Semi dry blotting device



For 2 mini gel
Semi dry blotting system



For 4 mini gel
Semi dry blotting system



Name	PoweredBlot-Ace	HorizeBLOT 2M-R	HorizeBLOT 4M-R
Product code	2322490	2322460	2322470
Model	WSE-4115	WSE-4020	WSE-4040
Power supply unit	Built-in	—	
Electrode size	95mm(W) × 98mm(D)	205mm(W) × 100mm(D)	205mm(W) × 200mm(D)
Distance between electrodes	Min: 3mm Max:10mm	Min: 3mm Max:15mm	
Polarity	Upper:Cathode (−) Lower:Anode (+)		
Blotting solution volume	~ 100mL	100 ~ 200mL (Depending on size and number of gel)	100 ~ 400mL (Depending on size and number of gel)
Available number of gel for blotting	Compact gel:1 Mini gel:1	Compact gel:2 Mini gel:2	Compact gel:4 Mini gel:4 Slab gel:1
System	Semi dry type blotting		
Material	Main unit:Acrylic Upper electrode:Chemical-resistant stainless steel Lower electrode:Platinum plating titanium Power supply case:ABS resin	Main unit:Acrylic Upper electrode:Chemical-resistant stainless steel Lower electrode:Platinum plating titanium	
Dimension (mm, except projection)	Main unit: 170 (W) × 120 (D) × 107 (H) AC adaptor: 36(W) × 95 (D) × 31 (H)	290 (W) × 143 (D) × 102 (H)	290 (W) × 243 (D) × 102 (H)
Weight	0.77kg (except AC adaptor)	1.65kg (except lead wires)	2.55kg (except lead wires)
Component	<ul style="list-style-type: none"> • WSE-4115 main unit: 1 • AC adaptor: 1 • Extension code: 1 • Roller: 1 • Instruction manual: 1 	<ul style="list-style-type: none"> • WSE-4020 main unit: 1 • Power lead wire with safety terminal: 1 ※ Reverse connection prevention structure • Roller: 1 • Instruction manual: 1 	<ul style="list-style-type: none"> • WSE-4040 main unit: 1 • Power lead wire with safety terminal: 1 ※ Reverse connection prevention structure • Roller: 1 • Instruction manual: 1

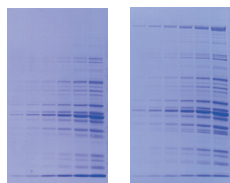
ATTO Western Blotting System Relative Products(Reagent)



3 blotting solution set for semi dry blotting



AE-1460



Left : Tris-Glycine-Methanol solution
Right : Used AE-1460 EzBlot

- Blotting solution suitable for semi dry blotting type
- High transfer efficiency

- 3 blotting solution set for semi dry blotting
- Easy preparation; adding only a small amount of methanol
- Reduce running cost, also available with blotting system of other company

Product code	Model	Name	Volume
2332600	AE-1460	EzBlot	Solution A, C : 500mL × 1 Solution B : 500mL × 2

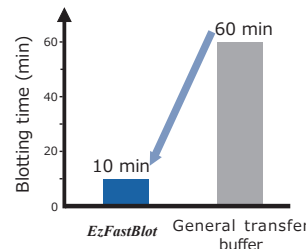


High speed blotting solution for semi dry blotting



AE-1465

WSE-7210



- High speed blotting; 10min is the quickest time
- Widely transferable
- HMW type for high molecule 100kDa

- 1 bottle type blotting buffer for semi dry blotting
- Easy preparation; diluting only with distilled water. Not need to use methanol.
- Reduce running cost, also available with blotting system of other company

Product code	Model	Name	Volume
2332590	AE-1465	EzFastBlot	500mL (10 ×)
2332595	WSE-7210	EzFastBlot HMW	500mL (5 ×)



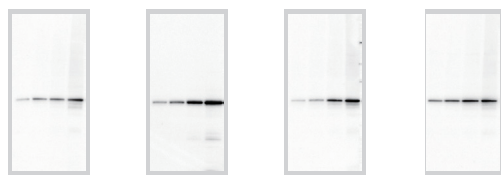
High efficiency & Multi-use Blocking reagent



AE-1475

AE-1476

AE-1477



3% Skim milk

AE-1475
EzBlock Chemi

AE-1476
EzBlock BSA

AE-1477
EzBlock CAS

- High blocking efficiency
- Freely adjustable according to use

- High S/N ratio data can be provided in western blotting
- Also suitable for southern, northern blotting and ELISA etc.
- Easy preparation; Diluting in distilled water to 5 times
- Tween-20 is regularly attached to AE-1476 and 1477; freely adjustable according to use

Product code	Model	Name	Volume
2332615	AE-1475	EzBlock Chemi	500mL (5 ×)
2332616	AE-1476	EzBlock BSA	200mL (5 ×)
2332617	AE-1477	EzBlock CAS	200mL (5 ×)



Luminol substrate for HRP detection

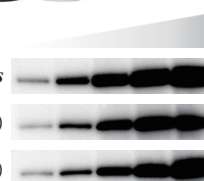


WSE-7120S

EzWestLumi plus

Product I of other company)

Product P of other company)



Detected antibody:HRP mark antihuman β -actin antibody (mouse), diluted in 10,000 times.
Detection:Ez-Capture MG (ATTO)

- Good cost performance
- High-sensitive rapid detection

- Good cost performance
- High sensitive detection can be provided in a short time
- Antibody is handled with it under higher dilution degree than conventional one
- Light-emission is made possible by a small quantity of working solution
- Quantitative analysis of high concentrated sample is made possible because luminous reaction is hard to be saturated

Product code	Model	Name	Volume
2332637	WSE-7120S	EzWestLumi plus	50mL × 2
2332638	WSE-7120L		250mL × 2

ATTO Western Blotting System

Relative Products (Consumables/Power Supply/Gel Imaging System)

WB

**PVDF membrane
for high effective blotting**



- Extremely low background
- Various size to suit gel

- Superior in protein retention and bonding amount
- Reduce background more than conventional goods

Product code	Model	Name	Volume
2322450	WSE-4050	P plus Membrane	65mm × 65mm 20 sheets/box
2322451	WSE-4051		85mm × 90mm 20 sheets/box
2322452	WSE-4052		130mm × 140mm 10 sheets/box
2322453	WSE-4053		260mm × 3m 1 roll/box

WB

Filter series for blotting



- Superior in compactness and cleanliness
- Various size to suit gel

- Thickness of filter, ~0.9mm, is ideal to keep a plenty volume of blotting buffer
- Filter is cut to each size; ready-to-use

Product code	Model	Name	Volume
2322437	CB-06A	Filter paper	65mm × 65mm 0.9mm thickness, 400 sheets/Box
2392393	CB-09A		85mm × 90mm 0.9mm thickness, 400 sheets/Box
2322436	CB-13A		130mm × 140mm 0.9mm thickness, 200 sheets/2 boxes
2392493	CB-20A		200mm × 200mm 0.9mm thickness, 100 sheets/Box

PS

**High current
Power source equipment**



WSE-3500

Specification
Voltage value (1V step)
5~150V
Current value (10mA step)
0~3000mA
Power value (1W step)
0~200W

- High current output; Max 3000mA
- Suitable for semi dry high-speed blotting

- Suitable for the experiments requiring high current such as semi dry high-speed blotting
- 3 selectable output pattern; Constant Current, Constant Voltage, Constant power
- More than 20 pattern of output condition are preset, and original output condition can be memorized
- Big sized dial-knob to set each parameter easily

Product code	Model	Name
2311124	WSE-3500	PowerStation HC

MI

**High performance
Chemiluminescent imaging system**



WSE-6100

- Chemiluminescence imaging of Western blotting
- Clear image detection with less noise

- 1.4 mega pixels cooled CCD camera, F0.95 high sensitive lens
- Equipped noise rejection functions such as electron cooling of CCD, subtraction method with dark data and so on
- Image data whose S/N ration is high is provided
- Merging prestained M/W marker image with chemiluminescent image is made possible
- Analyzing software "CS Analyzer" for quantive analysis
- Fluorescent imaging and white light imaging are made possible with optional goods

Model	Name
WSE-6100 series	LuminoGraph



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2016.4