Western Q

Rapid Immunostaining Device - Western Q™ cuts time for western blotting immunostaining process* from more than 4 hours, which takes by traditional shaking method, to just 40 minutes. Data quality such as quantitative performance, reproducibility, or sensitivity by the device is more than equal to one by the traditional method.

* Total process through blocking, primary antibody reaction, secondary antibody reaction and washing after protein transfer process

Western *Q*™
Rapid Immunostaining Device

Easy operation - 40 minutes

Standard protocol, Circulated Pulse Method, achieves immunostaining in 40 minutes. The time can be 30 minutes depending on antibody concentration and protocol. It takes more than 40 minutes with antibody solution that requires over night reaction by shaking method.

Two protocols depending on purposes

Two basic protocols were prepared. “Circulated Pulse Method” realizes high sensitivity, and “Incubation Method” realizes simultaneous multiple antibody reaction

High quality data

Optimized flow control with Circulated Pulse Method realizes high quantitative performance, reproducibility, or sensitivity

→see Data Sheet for detail: www.scitrove.co.jp/westernq/WTQ_DataSheet_Eng.pdf

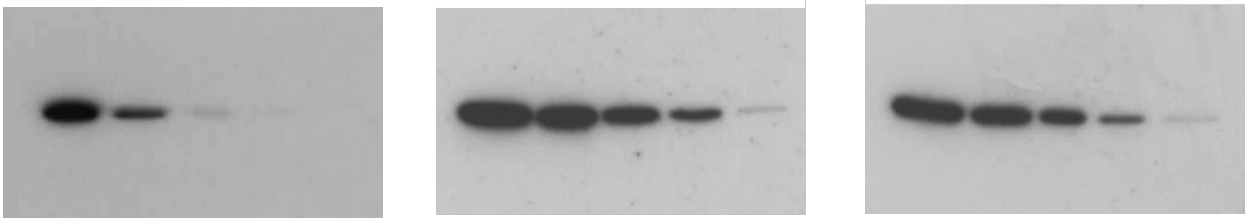
No need for optimization process on antibody concentration

Same antibody concentration on traditional method can be used. Recommended concentration by antibody manufacturer is enough in many cases. Required solution volume is 15ml for wide gel (140 × 80mm), 8ml for mini gel (80 × 80mm), and 4ml for 80 × 40mm

Compact body fitting gel size

You can use it on small space, and move it easily.

More than equal image to the traditional method / highly quantitative, reproducible, and sensitive



Traditional shaking method
240 minutes

Western Q
Circulated Pulse Method (A)
40 minutes

Western Q
Circulated Pulse Method (B)
40 minutes

Lanes : Two times dilution series of total protein from 10 μg to 0.625 μg derived from mouse cultured cell were blotted on the membranes
Blocking: 5% skim milk on traditional shaking method, 0.5% skim milk on Western Q Circulated Pulse Method
Primary antibody : Mouse monoclonal β-Actin (C4) (Santa Cruz)、1/3000 dilution
Secondary antibody: Polyclonal goat anti-mouse immunogloblins/HRP (Dako)、1/7500 dilution
ECL (GE Healthcare) was used for chemiluminescence reaction. Exposed for 40 seconds on X ray film
Two replication, A and B, was conducted on Western Q Circulated Pulse Method.

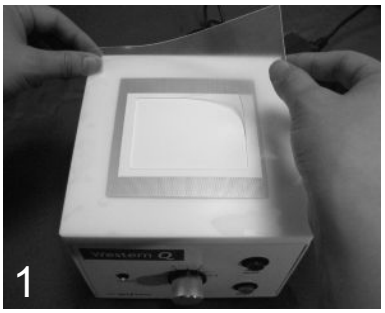
Compared under the same condition

Principle of rapid immunostaining by Western *Q*™

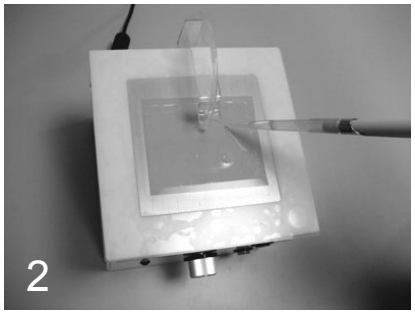
Method by Western Q accelerates association between antigen molecule and antibody molecule by continuous flow of antibody solution through membrane pores. Additionally, pulse flow promotes stable binding of molecules and realizes high signal intensity. Circulation by pump enabled efficient antibody reaction with a certain amount of antibody solution.

Patent pending

Standard operation by Circulated Pulse Method



Set a membrane, and place a membrane cover on it.



Pour 8ml of blocking solution on the membrane. Circulate the solution for 5 minutes, and discharge it.

Pour 8ml of primary antibody solution on the membrane. Circulate the solution by pulse flow for 15 minutes, and discharge it.

4 Pour 8ml of secondary antibody solution on the membrane. Circulate the solution by pulse flow for 15 minutes, and discharge it.

5 Set a washing unit. Pour 100ml of washing solution in the unit and discharge it. (about 5 minutes)

6 Eject the membrane, rinse it in washing solution, and react with chemiluminescence reagent.

Easy operation, 40 minutes!

Western *Q*™ specification

Type	WTQ101 (for mini gel)	WTQ102 (for wide gel)
Dimension	150(W)×150(D)×157(H)	190(W)×150(D)×157(H)
Weight	1.6kg	1.7kg
Maximum membrane size	90×90(mm)	140×90(mm)
Antibody solution required	8ml (90×90mm membrane)	15ml (140×90mm membrane)
Pump speed	5-40ml/minute	

WTQ101

WTQ102

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