



IE NEO IMMUNOENHANCER

Next Generation Western Blot Blocking & Enhancer Solution

Nippon's mission is to build bridges between Japanese and European research life science markets to increase the availability of the most recent life science tools which leads to more efficient and specific drug development which can save lives and contribute to a more sustainable health economy.

Efficient & Effective Western Blotting

Western Blotting is one of the most prominent laboratory techniques used by researchers and educators in a variety of research fields. To this day, Western Blotting is the most used immunoassay for protein detection. Therefore efficiency and effectiveness in Western Blotting are key. The most frequent problems are long incubation times, weak signals and durability as specified below.

Problem 1:

Traditional Western Blotting protocols usually have long incubation times. They require separate incubations of the primary and secondary antibodies. In addition, the traditional Western Blotting protocol has an essential blocking step to prevent any nonspecific binding of antibodies to the surface of the membrane. This process is time consuming and needs to be more efficient. Shorter incubation times will increase the efficiency of the procedure.

Problem 2:

In traditional Western Blotting, it remains difficult to find the optimal setting to obtain a strong signal, detect small proteins, detect samples with low protein concentrations and to get rid of the background, even after prolonged exposure time. Improving the Western Blotting procedure will increase its effectiveness and quality resulting in clear and robust results.

Problem 3:

Obtaining a stronger signal requires a high investment of time, valuable samples and expensive antibodies. In addition to the low effectiveness and efficiency, the traditional Western Blotting procedure is therefore considered to be highly unsustainable.



Introducing the IE NEO

IE NEO is the highly innovative next generation of Western Blot blocking and enhancing agent that addresses these frequent issues in a single solution. The proprietary composition of IE NEO can significantly decrease the duration of each experiment and simultaneously achieve stronger signals and less background. These advantages are attributed to the advanced nanoparticle composition of IE NEO. IE NEO works with polyvinylidene difluoride and nitrocellulose membranes and is compatible with fluorescence, chromogenic and chemiluminescent detection.

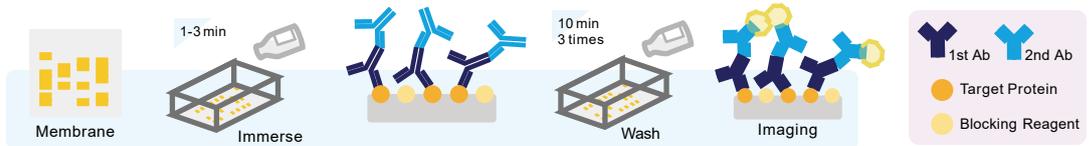
IE NEO enables the combined incubation of both the primary and the secondary antibody incubation while no additional blocking step is necessary. This significantly reduces the duration of the procedure. Furthermore, a major problem in Western Blotting is a weak signal and faint bands. IE NEO enhances both the signal intensity and specificity (as illustrated in Figure 1). As a result, the procedure requires a lower concentration of antibodies, while the signal is amplified with less background compared to the traditional procedure.

To this day, transitioning from the traditional Western Blotting protocol to implementation of blocking and enhancing agents is expensive. The transition requires the use of different reagents and materials and subsequently completely new protocols. For a lab to make the shift to a new technique will result in high cost and high effort.

IE NEO only requires minor changes compared to the traditional protocol. The major advantage that IE NEO is the only product needed in order to replace the blocking and antibody buffer with minimal changes to the protocol. A minor adjustment will therefore result in a major improvement in duration and specificity of the Western Blots.

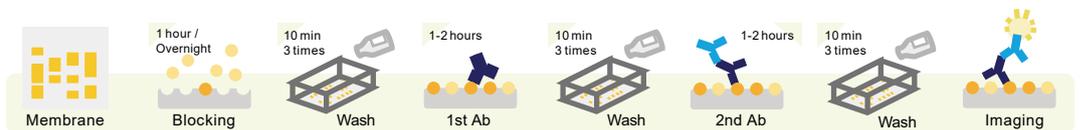
NEO One-Step Protocol

MAX 2.5 Hrs

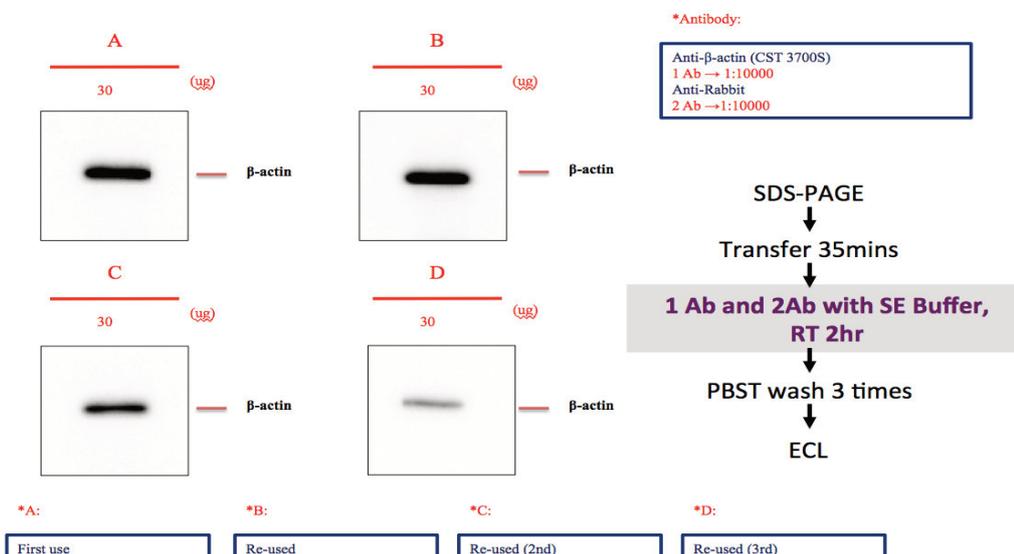


Traditional Protocol

MIN 4.5 Hrs



Moreover, in contrast to the traditional protocol, IE NEO has a robust efficiency. As demonstrated in Figure 2, IE NEO can be reused up to three times without compromising the signal. In conclusion, IE NEO is more effective and more efficient than using the traditional Western Blotting protocol.





KEY DIFFERENTIATORS	IE NEO	TRADITIONAL WESTERN BLOTTING
EFFICIENCY	MAX. 2,5 HOUR 5 STEPS	MIN. 4,5 HOUR 8 STEPS
EFFECTIVENESS	ENHACES SIGNAL INTENSITY AND SPECIFICITY	LOW SPECIFICITY AND HIGH BACKGROUND
DURABILITY	USAGE: 4 X WITH HIGH SIGNAL	USAGE: 1 X WITH LOW SIGNAL
SUSTAINABLE	NO WASTE DURING PROCEDURE	LOSS OF EXPENSIVE ANTIBODIES
REUSABILITY	UP TO 3X	NOT REUSABLE
PRICE	GET A QUOTE	€300 APPROX.

IE NEO Immunoenhancer	Numbers of western blots without reuse	Numbers of western blots with reuse
50mL version	16 - 25	48 - 75
250mL version	83 - 125	249 - 375
500mL version	166 - 250	498 - 750

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