EZ-Western Series

EZ-Western Lumi Femto

Western Blot Detection Kit

Cat. No. DG-WF100

DG-WF200

FOR RESEARCH USE ONLY.

NOT FOR USE IN DIAGNOSTIC PROCEDURES.

DoGenBio Co., Ltd.

▪ Description

The EZ-Western Lumi Femto Kit is designed for Western blot experiments using chemiluminescence detection, allowing for the visualization of target protein band signals.

Among DoGENBio's EZ-Western series, this product offers the highest sensitivity, with a protein detection range down to the low femtogram level. It enables result verification even when working with low-expression proteins or minimal amounts of antibodies.

▪ Kit components

Product	Catalog No.	Size
EZ-Western Lumi Femto	DG-WF100	100 mL (A: 50 mL + B: 50 mL)
	DG-WF200	200 mL (A: 100 mL + B: 100 mL)

▪ Storage

Store at 0–4°C, and it can be used without any loss of activity for up to 1.3 years from the date of manufacture.

▪ Sensitivity

The detection range goes down to the low femto-gram level.

▪ Signal duration time

The signal duration lasts approximately 2 to 3 hours.

▪ Recommended Antibody dilution

The primary antibody (1st AB) can be diluted from 1 : 5,000 to 1 : 100,000, and the secondary antibody (2nd AB) can be diluted from 1 : 100,000 to 1 : 500,000.

▪ Procedure Summary

Note : Use the antibody dilution ratios recommended by the manufacturer.

1. Prepare the working solution by mixing Solution A and Solution B at a 1:1 ratio.
   - Use approximately 0.1 ㎖ of the working solution per 1 cm^2 of membrane.
2. Immerse or pour the working solution over the membrane you wish to analyze, allowing it to react.
   - Avoid exposing the working solution to strong light for prolonged periods, as this can reduce the sensitivity of the product.

3. Let the reaction proceed at room temperature for 1–5 minutes.
4. Remove the membrane from the working solution and place it inside a membrane protector*. (*Membrane protector: Use a plastic sheet protector or cling wrap.)
5. Use tissue or absorbent paper to remove excess working solution, and ensure there are no air bubbles between the membrane and the protector surface.
6. Check the protein bands using X-ray film or an imaging system.

▪ Related Products

Product	Catalog No.	size
EZ-Western (Nano~mid picogram)	DG-W100	100 mL (A: 50 mL + B: 50 mL)
	DG-W250	250 mL (A: 125 mL + B: 125 mL)
	DG-W500	500 mL (A: 125 mL X 2 + B: 125 mL X 2)
EZ-Western Lumi Pico (Low picogram)	DG-WP100	100 mL (A: 50 mL + B: 50 mL)
	DG-WP250	250 mL (A: 125 mL + B: 125 mL)
	DG-WP500	500 mL (A: 125 mL X 2 + B: 125 mL X 2)
EZ-Western Lumi Pico Alpha (Low picogram)	DG-WPAL120	120 mL (A: 60 mL + B: 60 mL)
	DG-WPAL250	200 mL (A: 125 mL + B: 125 mL)
EZ-Western Lumi La (Mid femtogram, Long duration)	DG-WD100	100 mL (A: 50 mL + B: 50 mL)
	DG-WD200	200 mL (A: 100 mL + B: 100 mL)
EZ-Western Lumi Femto (Low femtogram)	DG-WF100	100 mL (A: 50 mL + B: 50 mL)
	DG-WF200	200 mL (A: 100 mL + B: 100 mL)
EZ-Western Membrane Tray	DG-WMT8	1 set (8 EA, 10 X 6 X 2 cm)
EZ-Western Stripping Buffer	DG-WSB500	500 mL
3-Color Regular Range Protein Marker, 10-245kDa	DG-PMC245	250 ㎕ x 2
3-Color Broad Range Protein Marker PLUS, 5-245kDa	DG-PMP245	250 ㎕ x 2
EZ-BCA Protein Quantification Kit	DG-BCA500	Reagent A : 500 mL Reagent B : 25 mL Standard Sol. : 1 mL X 10
EZ-Bradford Assay Dye Reagent	DG-BRA500	Reagent : 500 mL Standard Sol. : 1 mL X 10
EZ-Gel staining solution (without de-staining)	DG-GS1000	1000 mL

▪ Troubleshooting

Problem	Cause	Solution
With (negative) bands on the film	Too much HRP in the system	Dilute HRP-conjugate (secondary antibody) at last 10-fold
Brown or yellow bands appear on membrane		
Weak or no signal	Too much HRP in the system depleted the substrate and caused the signal to fade quickly	Dilute HRP-conjugate (secondary antibody) at last 10-fold
	Insufficient quantities of antigen or antibody	Increase the amount of antigen or antibody.
	Inefficient protein transfer	Optimize the transfer.
High backgrounds	Too much HRP in the system	Dilute the HRP-conjugate by at least 10-fold.
	Inappropriate blocking reagent concentration	Optimize the blocking reagent conditions.
	Unsuitable blocking reagent	Use a different type of blocking reagent.
	Inadequate washing	Increase the washing time, frequency, or volume.
	Excessive film exposure	Reduce the exposure time.
	High concentration of antigen or antibody	Reduce the concentration of antigen or antibody.
Speckled background on film	Precipitate formed in the HRP-conjugate	Filter the conjugate using a 0.2 μm filter.
Non-specific bands appear	Too much HRP in the system	Dilute the HRP-conjugate by at least 10-fold.
	SDS caused nonspecific binding to protein bands	Do not use SDS during the Western blot procedure