Product Data Sheet

Product Name: Ultra High Sensitivity ECL Kit

Cat. No.: GK10008

Components

Components	200ml	1000ml
Solution A	100 mL	100 mL × 5
Solution B	100 mL	100 mL × 5

Features

Applications	Excellent sensitivity-antigen detection from picogram to low femtogram level. Higher signal-to-noise ratio-precise luminescent substrate, lower background. More beneficial to save antibodies-optimized substrate system, higher antibody binding force. Excellent cost performance-higher performance, lower price. Excellent stability-new oxidant, stable storage for 1 year at room temperature.
Storage Conditions	Store at 4°C, protect away from light, and keep it stable for 1 year.

Protocol

1. Rinse the Western blot membrane after incubation with HRP-labeled antibody.

2. Mix ECL-A solution and ECL-B solution in equal volume ratios to obtain ECL working solution (prepared for use now). About 3-5 ml ECL working solution is needed for every 5cm x 8cm blotting membrane. Note: The suction heads for liquid A and B must be separated.

3. Soak up the liquid on the surface of the blotting membrane on absorbent paper and spread it flat on the plastic membrane.

4. Drop the prepared ECL working solution evenly on the surface of the blotting membrane, and after reacting for about 2 minutes, remove the ECL working solution.

5. Sandwich the blotting film between two layers of plastic film, press X-ray film or put it into the luminescence imager to take pictures.

Precautions:

1. Do not expose the ultra-sensitive ECL chemiluminescence working fluid to sunlight or strong light, otherwise it will be inactivated. It is recommended to protect the working fluid Store in a brown bottle and avoid prolonged exposure to the sun. Laboratory light has little effect on the working fluid.

2. When using the biotin/avidin system, avoid using skimmed milk powder as a blocking liquid, because skimmed milk powder contains a variety of endogenous sources Sex biotin is prone to produce non-specific signals.

Caution: Producthasnot been fully validated for medical applications. For research use only.
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3. Use sufficient washing buffer, blocking solution, antibody diluent and substrate working solution to cover the blotting membrane to ensure that the blotting membrane is in a wet state. Using a large amount of blocking solution and washing solution can reduce the generation of non-specific signals.

4. Sodium azide is an inhibitor of HRP enzyme, which will interfere with the reaction system, so avoid using sodium azide as a buffer in the buffer. preservative.

5. After the blotting membrane is incubated with ECL chemiluminescence working solution, the fluorescence emitted within 5-30 minutes is the strongest, and then the fluorescence will follow The extension of time weakened. When the fluorescence of the protein dots is weak, the exposure time can be extended appropriately.

Background

The core principle of ECL reagent detection is the luminescence of the oxidation reaction: Luminol (lumino) is the main component of the luminescence substrate. Under alkaline conditions, it is catalyzed by H2O2 to generate 3-amino ozone. The excited state intermediate of phthalic acid emits photons when it returns to the ground state. The maximum emission wavelength is 425 nm. The photon signal can be captured by X-ray film or CCD imager.

The GlpBio Ultra High Sensitivity ECL kit can oxidize luminol in the presence of HRP and peroxide to detect within the femtogram range of antigens. This reaction produces prolonged chemiluminescence, which can be seen on X-ray film or digital imaging systems. The GlpBio Ultra High Sensitivity ECL kit can produce a powerful, long-lived signal. Coupled with a very low background level, it can extend the exposure time to detect low-abundance proteins.