ImmunO$_4$™

125 Airport Drive, Unit 14
Westminster, MD 21157
443-821-3504

Lightning in a Bottle™ One Component Chemiluminescent Membrane / Blotting Peroxidase Substrate (LIABB™)

Product Description:

ImmunO$_4$ stabilized Lightning in a Bottle™ One Component Chemiluminescent Membrane / Blotting Peroxidase Substrate is luminol based and can detect horseradish peroxidase at high sensitivity levels (low picogram to femtogram). It provides superior sensitivity and convenience compared to competitor products. The substrate is supplied as **ONE** component. Lightning in a Bottle™ Blotting Substrate may be used for any blotting application utilizing horseradish peroxidase (HRP)-conjugates. The substrate can be used with various blocking buffers and on nitrocellulose or PVDF membranes. Such blots will exhibit low backgrounds. Detection and analysis may be done by CCD imaging systems or x-ray film.

Lightning in a Bottle™ Blotting Substrate is a one component ready to use reagent providing unique convenience, sensitivity and reduced costs for kit manufacturers.

- No mixing is required.
- Get consistent results by avoiding aliquoting and mixing errors.
- Kit manufacturers can reduce costs by eliminating additional bottles and superfluous packaging.

Hazard Identification:

Please see MSDS.

Product Stability, Storage and Specifications:

Lightning in a Bottle™ One Component Chemiluminescent Blotting Peroxidase Substrate has a minimal shelf life of 18 months when stored in the dark at 2° C to 8° C. Keep container tightly closed. Store ImmunO$_4$ Lightning in a Bottle™ away from heat or light.

Product Use:

- Equilibrate an aliquot of LIABB at room temperature before use. Aliquot into a clean container. Do not contaminate the substrate with HRP enzyme or other proteins. Never pipette directly from the LIABB stock substrate storage bottle or pour used or aliquoted solution back into the stock vessel.
- Avoid increasing backgrounds by handling Blots with clean gloves and clean forceps. Forceps contaminated with rust can lead to an unwanted reaction and increased backgrounds.
- Analytes can be applied to membranes as a dot blot or via gel transfer. Blotting conditions should be optimized for each assay system. Use approximately 100 uL of LIABB per square centimeter of membrane.

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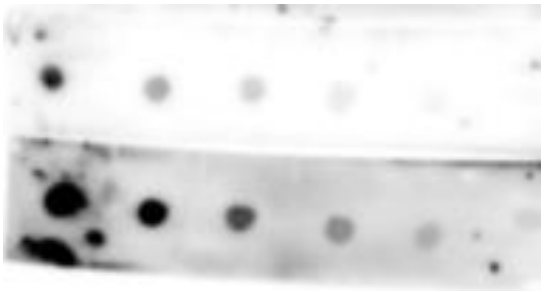
- Place membrane in a clean, dry vessel. Add LIABB to the membrane and incubate at room temperature for optimal detection. Best results for chemiluminescence can be obtained from one to 10 minutes after contacting substrate with HRP enzyme.
- Remove excess substrate by blotting on filter paper. Cover membrane with clear plastic wrap and visualize by either x-ray film or a CCD imaging system.
- LIABB substrate has a wide range to detect HRP enzyme on a membrane.

Lightning in a Bottle™ One Component Chemiluminescent Blotting Substrate Performance Results

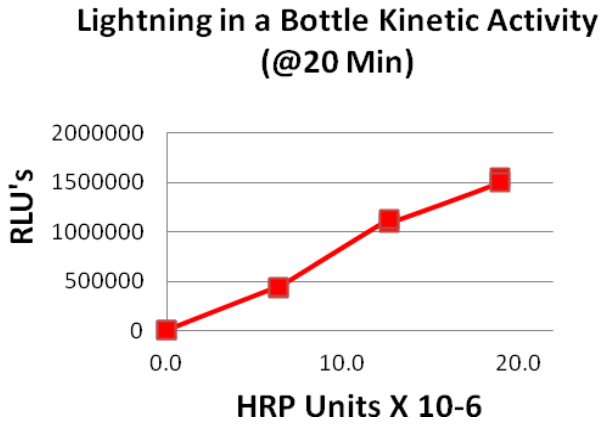
100pg 50pg 25pg 12 pg 6 pg 3pg



(1) Leading Competitor

(2) Lightning in a Bottle™ (LIABB)

Serial dilutions of analyte (rabbit IgG) was blotted on PVDF membranes and reacted with a goat anti-rabbit HRP conjugate (1:10,000 dilution) for two hours. The blots were washed three times, and visualized using (1) a leading competitor luminol chemiluminescent substrate or (2) LIABB one component chemiluminescent substrate for five minutes. The blots were exposed for five minutes with a CCD imaging system.



Replicate dilutions of HRP enzyme were incubated with LIABB One Component Chemiluminescent ELISA Peroxidase Substrate. Results were read on a luminometer at 20 minutes. LIABB demonstrated high sensitivity and excellent signal to noise ratios.