

Amersham™ Hyperfilm™ Blue

Amersham Hyperfilm Blue is a blue sensitive film for the detection of chemiluminescent signals in different blotting assays. It requires minimal exposure time and yet produces radiographs with sharp and high contrast. The sensitivity of a blue film is lower than that of Amersham Hyperfilm but it is often adequate for many screening applications where qualitative and fast results are required. Amersham Hyperfilm Blue is suitable for use with Amersham ECL™, Amersham ECL Prime, Amersham ECL Plus, Amersham ECL Advance™ and CDP-Star™ (data not shown), and it can be processed in automatic processors or manually by using most common X-ray film developers and fixers.

Applications: chemiluminescent detection in Western, Southern, and Northern blots.

We performed Western blots with a two-fold dilution series of transferrin spiked in *E. coli* (2.5 ng to 0.6 pg) to test the performance of Amersham Hyperfilm Blue. In addition, we conducted a comparative study using CL-XPosure Film (Thermo Scientific) and Kodak™ X-OMAT™ Blue (XB) Film (PerkinElmer) at the laboratories of GE Healthcare Life Sciences. We used ECL Prime Western Blotting Detection Reagent to detect transferrin before exposing the membranes to each film for 1 and 3 min. Figure 1 shows that Amersham Hyperfilm Blue required minimal film exposure because after only 1 min exposure time, the film showed a high detection limit of 9.8 pg. Figure 2 shows a comparison of the volume intensity of the first four bands of transferrin. We used ImageQuant™ LAS 4010 to record the images.

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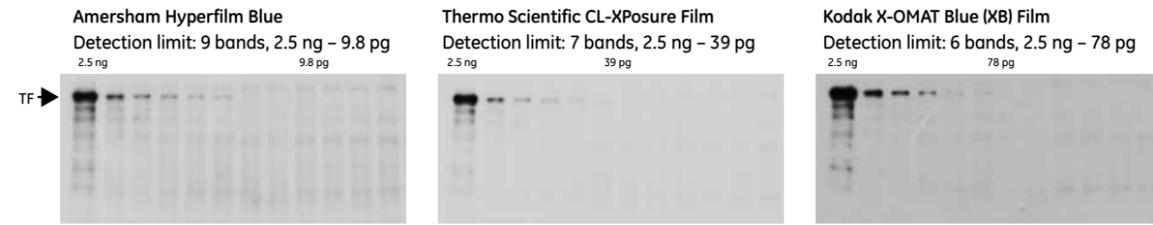
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|--------------------|--|
| <i>Sample load</i> | Two-fold dilution series of transferrin from 2.5 ng spiked in <i>E. coli</i> |
| <i>Gel</i> | Invitrogen™ Novex™ 12% Tris-Glycine gel 1.0 mm x 15 well |
| <i>Marker</i> | High-Range Rainbow™ Molecular Weight Marker |
| <i>Membrane</i> | Hybond™ LFP PVDF Transfer membrane |
| <i>Blocker</i> | 3% BSA |

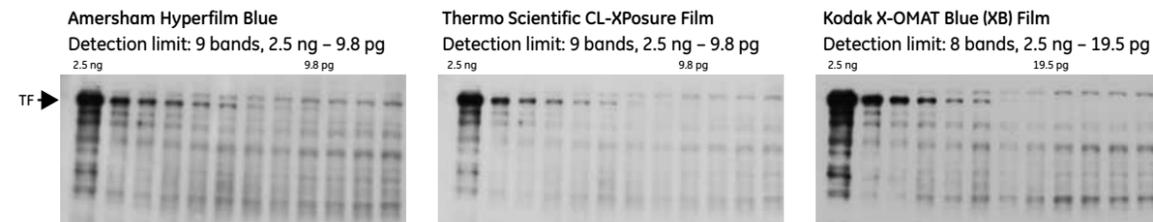
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|--------------------------|---|
| <i>Primary ab</i> | Polyclonal rabbit anti-Human Transferrin. Dako Cytomation dilution 1:4000 |
| <i>Secondary ab</i> | ECL Rabbit IgG, HRP-Linked Whole Ab (GE) dilution 1:40000 |
| <i>Detection reagent</i> | ECL Prime Western Blotting Detection Reagent |
| <i>Film detection</i> | Amersham Hyperfilm Blue Thermo Scientific CL-XPosure Film Kodak X-OMAT Blue (XB) Film |
| <i>Imaging</i> | ImageQuant LAS 4010 |



A. 1 min film exposure



B. 3 min film exposure



C. Enlargement of Amersham Hyperfilm Blue after 1 min film exposure

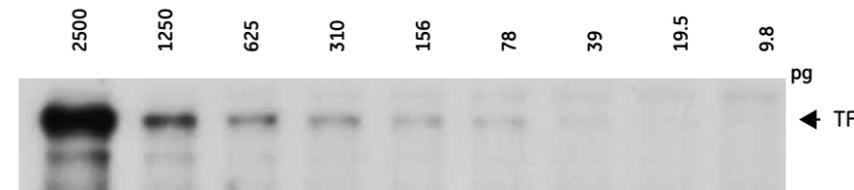


Fig 1. Comparative Western blot performance evaluation of Amersham Hyperfilm Blue; Thermo Scientific CL-XPosure Film, and Kodak X-OMAT Blue (XB) Film after (A) 1 min exposure; (B) 3 min exposure; and (C) Enlargement of Amersham Hyperfilm Blue after 1 min exposure. After only 1 min exposure time, Amersham Hyperfilm Blue showed a high detection limit of 9.8 pg transferrin. TF = Transferrin.

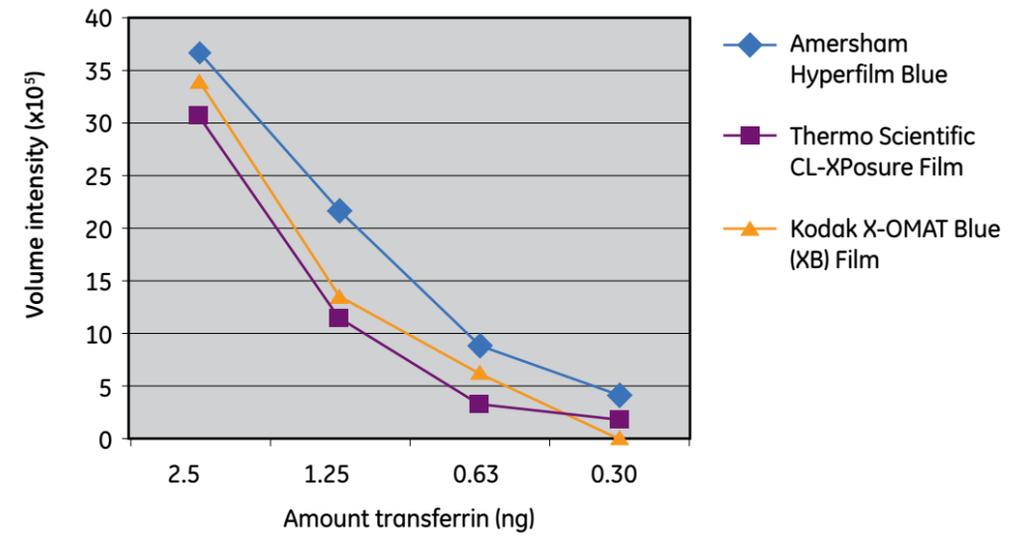


Fig 2. Volume intensity calculated with ImageQuant TL 7.0 software from the first four bands of transferrin (2.5 to 0.3 ng). The data shows that after 1 min exposure, Amersham Hyperfilm Blue film picked up the signal more efficiently than Thermo Scientific CL-XPosure film and Kodak X-OMAT Blue (XB) Film.

Ordering information

| Products | Quantity | Code No. |
|--|-----------------------------------|------------|
| Amersham Hyperfilm Blue 5 x 7 in | 100 sheets | 28-9888-22 |
| Amersham Hyperfilm Blue 18 x 24 cm | 100 sheets | 28-9888-21 |
| Amersham Hyperfilm Blue 8 x 10 in | 100 sheets | 28-9888-20 |
| Related products | Quantity | Code No. |
| Amersham ECL Prime Western Blotting Detection Reagents | for 1000 cm ² membrane | RPN2232 |
| Hybond-LFP (30 cm x 3 m) | 1 roll | RPN303LFP |
| ECL Rabbit IgG, HRP-Linked Whole Ab (from donkey) | 1 ml | NA934-1ML |
| High-Range Rainbow Molecular Weight Marker | 250 µl | RPN756E |
| Amersham Hyperfilm ECL 5 x 7 in | 50 sheets | 28-9068-35 |
| Amersham Hyperfilm ECL 18 x 24 cm | 50 sheets | 28-9068-36 |
| Amersham Hyperfilm ECL 18 x 24 cm | 100 sheets | 28-9068-37 |
| Amersham Hyperfilm ECL 8 x 10 in | 50 sheets | 28-9068-38 |
| Amersham Hyperfilm ECL 8 x 10 in | 100 sheets | 28-9068-39 |
| Amersham Hyperfilm ECL 24 x 30 cm | 50 sheets | 28-9068-40 |
| Amersham Hyperfilm ECL 35 x 43 cm | 50 sheets | 28-9068-41 |
| Amersham ECL Gel 10%, 10 wells | 10 gels | 28-9898-04 |
| Amersham ECL Gel 12%, 10 wells | 10 gels | 28-9898-05 |
| Amersham ECL Gel 4-12%, 10 wells | 10 gels | 28-9898-06 |
| Amersham ECL Gel 8-16%, 10 wells | 10 gels | 28-9898-07 |
| Amersham ECL Gel 4-20%, 10 wells | 10 gels | 28-9901-54 |
| Amersham ECL Gel 10%, 15 wells | 10 gels | 28-9901-55 |
| Amersham ECL Gel 12%, 15 wells | 10 gels | 28-9901-56 |
| Amersham ECL Gel 4-12%, 15 wells | 10 gels | 28-9901-57 |
| Amersham ECL Gel 8-16%, 15 wells | 10 gels | 28-9901-58 |
| Amersham ECL Gel 4-20%, 15 wells | 10 gels | 28-9901-59 |
| Amersham ECL Gel 10%, 2 wells | 10 gels | 28-9901-60 |
| Amersham ECL Gel 12%, 2 wells | 10 gels | 28-9901-61 |
| Amersham ECL Gel 4-12%, 2 wells | 10 gels | 28-9901-62 |
| Amersham ECL Gel 8-16%, 2 wells | 10 gels | 28-9901-63 |
| Amersham ECL Gel 4-20%, 2 wells | 10 gels | 28-9901-64 |
| Amersham ECL Gel 10%, 10 wells | 2 gels | 28-9898-08 |
| Amersham ECL Gel 12%, 10 wells | 2 gels | 28-9898-09 |
| Amersham ECL Gel 4-12%, 10 wells | 2 gels | 28-9901-51 |
| Amersham ECL Gel 8-16%, 10 wells | 2 gels | 28-9901-52 |
| Amersham ECL Gel 4-20%, 10 wells | 2 gels | 28-9901-53 |
| Amersham ECL Gel Box | 1 | 28-9906-08 |
| ECL Gel Running Buffer (10x) | 250 ml | 28-9902-52 |