



## TECHNICAL DATA SHEET

### FLURO-HANCE™ AUTORADIOGRAPHY ENHANCER

Order No. 112600

Size: 500ml

Fluro-Hance™ is a quick-acting autoradiography enhancer for use with polyacrylamide and agarose gels which contain one or more radioactive compounds. Fluro-Hance works through the process of “Fluorography,” a procedure in which signal enhancers are added to produce many-fold increase in sensitivity and to make the signal of weak beta emitters like Tritium detectable. Traditionally, Fluorography solutions contained DMSO, acetic acid or hydrocarb solvents. Fluro-Hance, a water soluble Fluorography solution, does not contain these problem chemicals. In addition, Fluro-Hance substantially reduces the traditionally long exposure once encountered with conventional autoradiography techniques.

#### **Procedure for use with Polyacrylamide Gels:**

1. Fix gel in a solution of 10% acetic acid and 30% methanol (v/v). Normal fixing time is 20-30 minutes.  
*(If the gel has been stained with Coomassie Blue, this step may be omitted as the Coomassie Blue staining procedure will fix the gel. Also, the gel does not need to be fixed if the proteins of interest are greater than 30,000 m.w.).*
2. If the gel has been acid-fixed or stained, soak the gel in 15-20 volumes of water for 30 minutes to avoid precipitation of the fluor.
3. Soak gel in Fluro-Hance using a volume equal to 8-10 times the gel volume. The gel should be free-floating in the enhancer.
4. Gently agitate at room temperature for 30 minutes.
5. Remove gel from solution and lay on wetted filter paper.
6. Dry gel under a mylar or acetate sheet under vacuum with heat at 60-80C. Drying time will take up to two hours depending on gel thickness. Exceeding two hours is not recommended.
7. Lay x-ray film over gel and expose at -76°C to -80°C. High speed x-ray film such as Kodak X-Omat AR or equivalent is recommended. It is important that the gel be in firm contact with the film during exposure.

#### **Procedure for use with 2% Agarose Gels:**

1. Agarose gels must be 3 mm or thicker to absorb sufficient solution.
2. Soak gel in enhancer for 5-10 minutes while gently agitating at room temperature. Use enough solution for the gel to float freely.
3. Remove gel and dry assuring that the drying temperature remains below the melting temperature of the agarose.
4. Expose gel to film according to procedure described for polyacrylamide gels.

**Pre-existing film for increased sensitivity:**

1. Pre-exposing film to a burst of light may improve the detection capability of the film.
2. This is accomplished by exposing film to a flash of light from a small strobe light at a distance of 3 feet.
3. Light output should be reduced and diffused by placing a Whatman No. 22 or No. 21 filter and two strips of Whatman No.2 filter paper over the lens.
4. Place pre-exposed side of film against gel.

**Storage:**

Fluoro-Hance should be stored at room temperature in the dark. Do not allow to freeze. Low temperature will cause a precipitate to form. Should this happen, let solution reach room temperature and agitate until precipitate redissolves.

**Re-Using Fluoro-Hance:**

Fluoro-Hance can be re-used as long as the solution shows no sign of discoloration. Discard solution if discoloration is apparent.

**Precautions:**

Fluoro-Hance is acidic and care should be taken when handling. It is recommended that standard laboratory gloves be worn when using this product. Do not allow product to come into contact with the eyes, skin or clothing. Do not pipet by mouth. Do not take internally. Wash hands thoroughly after using.

Note: Enhancement procedures should always be conducted under a properly operating fume hood.