Hybridization to a scanning array made on polypropylene

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Equipment and reagents

- Hybridization solution: 1 M NaCl, 10 mM Tris-HCl, 1 mM EDTA, 0.01% SDS
- 50–100 fmol radiolabelled transcript (see Preparation of target RNA for hybridization to arrays by *in vitro* transcription using T3, T7 or SP6 RNA polymerase and Quantitation of transcripts)
- Hybridization tube and oven (Techne)
- Storage phosphor screen (Fuji or Kodak)
- PhosphorImager or STORM (Molecular Dynamics)

Method

1. Place the polypropylene array in the hybridization tube, coiling it in a spiral to ensure that the back of the array is touching the tube along its whole length, and such that the edges meet at each turn.
2. Dilute the radiolabelled transcript in an appropriate volume of hybridization buffer.[a]
3. Place items 1 and 2 in the oven at the desired temperature for 30 min.
4. Put 100 ml of washing buffer in the oven to equilibrate.
5. Pour the hybridization mix into the tube and hybridize for 3–4 h.
6. Pour off the hybridization mix and wash the array with the hybridization buffer.
7. Allow the array to air dry, cover with cling film, and expose to a storage phosphor screen for 16–20 h (also see Notes in Hybridization to a scanning array fabricated on glass).
8. Scan the screen on PhosphorImager and analyse the image using *xvseq* (see Notes c and d in Hybridization to a scanning array fabricated on glass).

Notes

a Adjust the volume according to the size of hybridization tube. The mix should cover the array along the length of the tube. We use a 20 ml volume in a Techne hybridization tube.