## 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 <u>Preparation of target RNA for hybridization to</u> arrays by *in vitro* transcription using T3, T7 or SP6 RNA polymerase and <u>Quantitation of</u> 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.<sup>*a*</sup>
- 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 <u>Hybridization to a scanning array fabricated on glass</u>).
- 8 Scan the screen on PhosphorImager and analyse the image using *xvseq* (see Notes c and d in <u>Hybridization to a scanning array fabricated on glass</u>).

## 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.

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