SUPPLEMENTARY ONLINE DATA

A study of the ultrastructure of Fragile-X-related proteins

Ljiljana SJËKLOÇA*, Petr V. KONAREV†‡, John ECCLESTON*, Ian A. TAYLOR*, Dmitri I. SVERGUN†‡ and Annalisa PASTORE*†

*National Institute for Medical Research, The Ridgeway, London NW7 1AA, U.K., †European Molecular Biology Laboratory, Notkestrasse 85, Hamburg D-22603, Germany, and ‡Institute of Crystallography of Russian Academy of Sciences, Moscow 119333, Russia

Figure S1  Multiple sequence alignment of FXR proteins

The sequences are shaded according to the positional conservation. The positions of the putative PEST motifs are underlined.

Figure S2  Gel of the three stable constructs discussed in the main text to exemplify the degree of purity

The molecular mass in kDa is indicated on the left-hand side.
Table S1  Potential PEST sequences which could promote degradation of FXR proteins

The predictions were made using PESTFind.

<table>
<thead>
<tr>
<th>Protein</th>
<th>Potential PEST sequences (amino acid residues)</th>
<th>Poor PEST sequences (amino acid residues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMRP</td>
<td>484–505; 507–522</td>
<td>24–40; 158–179; 246–263; 276–290; 324–344</td>
</tr>
<tr>
<td>FXR1P</td>
<td>391–415; 470–497</td>
<td>24–40; 162–179; 246–263; 328–341; 578–593</td>
</tr>
<tr>
<td>FXR2P</td>
<td>437–459; 512–544; 557–581</td>
<td>1–19; 162–189; 256–273; 286–300; 338–351; 606–617</td>
</tr>
</tbody>
</table>

Figure S3  SAXS data

(A) Distance distribution functions from FXR1P Nt-KH1 (12 μM), FXR1P Nt-KH2 (12 μM) and FMRP Nt-KH1 (18 μM). (B) Ab initio bead model of FXR1P Nt-KH2 calculated with DAMMIN (grey semi-transparent spheres). The right-hand view is rotated counter-clockwise around the vertical axis. (C) Rg distributions from EOM for FXR1P Nt-KH1 (12 μM): initial random pool (solid line) and selected ensembles averaged over 50 independent EOM runs (broken line). The wide width of these distributions supports the flexibility of the HLH region.

Received 6 November 2008/6 January 2009; accepted 14 January 2009
Published as BJ Immediate Publication 14 January 2009, doi:10.1042/BJ20082197