**Supplemental Data**

**Table S1. Primers used for cloning and mutagenesis.**

| Primer Name | Primer Sequence |
|---|---|
| Fra2(Δ1-35) FOR | 5′-GACACTATCATATGCCCGTTACTGAAC-3′ |
| Fra2(Δ1-35) REV | 5′-GCTTGTCGACGGTACCCTCATACCAC-3′ |
| Fra2 C66S FOR | 5′-GGATCTTTCGTACGGTTCTGGTCAGTCGTTTG-3′ |
| Fra2 C66S REV | 5′-CAAACGACTGACCAGAACCGTACGAAAGATCC-3′ |
| Fra2 C107S FOR | 5′-CATGCCTTTAGCAGCAAGTGCTACAC-3′ |
| Fra2 C107S REV | 5′-GTGTAGCACTTGCTGCTAAAGGCATG-3′ |
| Fra2 C109S FOR | 5′-GTGCTGCAAGAGCTACACTGAGG-3′ |
| Fra2 C109S REV | 5′-CCTCAGTGTAGCTCTTGCAGCAC-3′ |
| Fra2 H56A FOR | 5′-CCGCAAGTTTACGCTATCATTGTGACG-3′ |
| Fra2 H56A REV | 5′-CGTCACAATGATAGCGTAAACTTGCGG-3′ |
| Fra2 H103A FOR | 5′-GCTGCAGGAGATTGCTGCCTTTAGCTGC-3′ |
| Fra2 H103A REV | 5′-GCAGCTAAAGGCAGCAATCTCCTGCAGC-3′ |
| Fra2 H103C FOR | 5′-GCAGGAGATTTGTGCCTTTAGCTG-3′ |
| Fra2 H103C REV | 5′-CAGCTAAAGGCACAAATCTCCTGC-3′ |

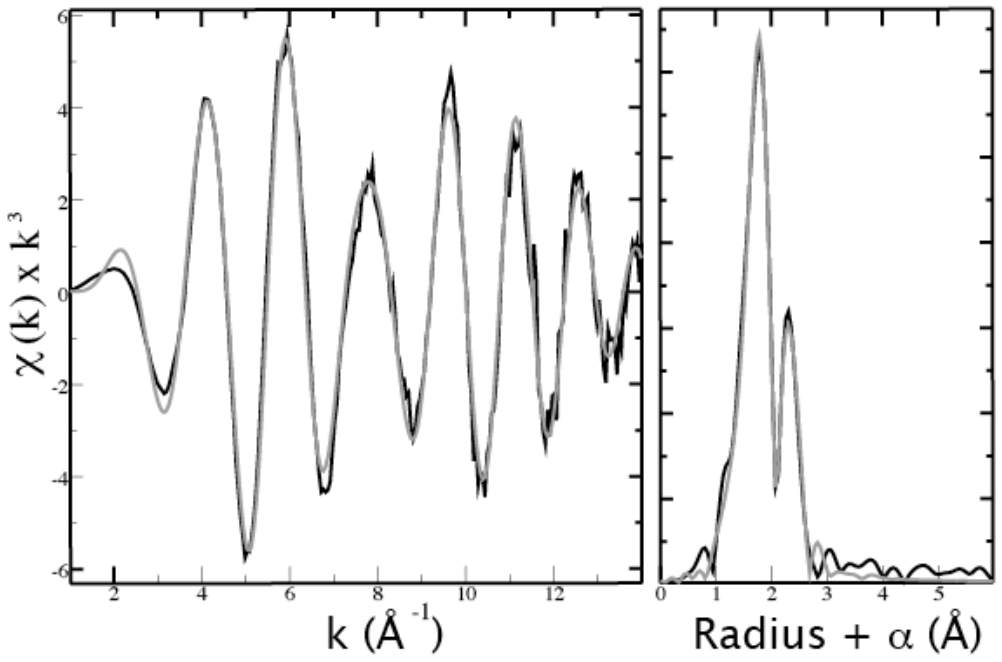


**Figure S1. Best 4-shell fit to the Fra2(H103A)-Grx3 heterodimer.** Fit details are found in Table 1, fit D. Gray line = fit, black line = unfiltered data.

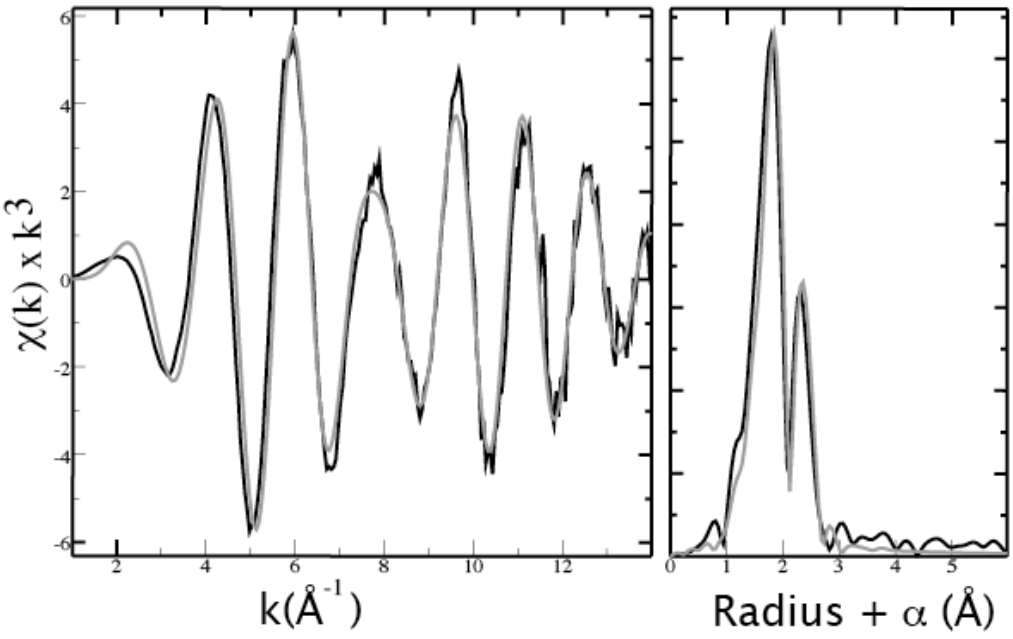


**Figure S2. Best 2-shell fit to the Fra2(H103A)-Grx3 heterodimer.** Fit details are found in Table 1, fit B. Gray line = fit, black line = unfiltered data.

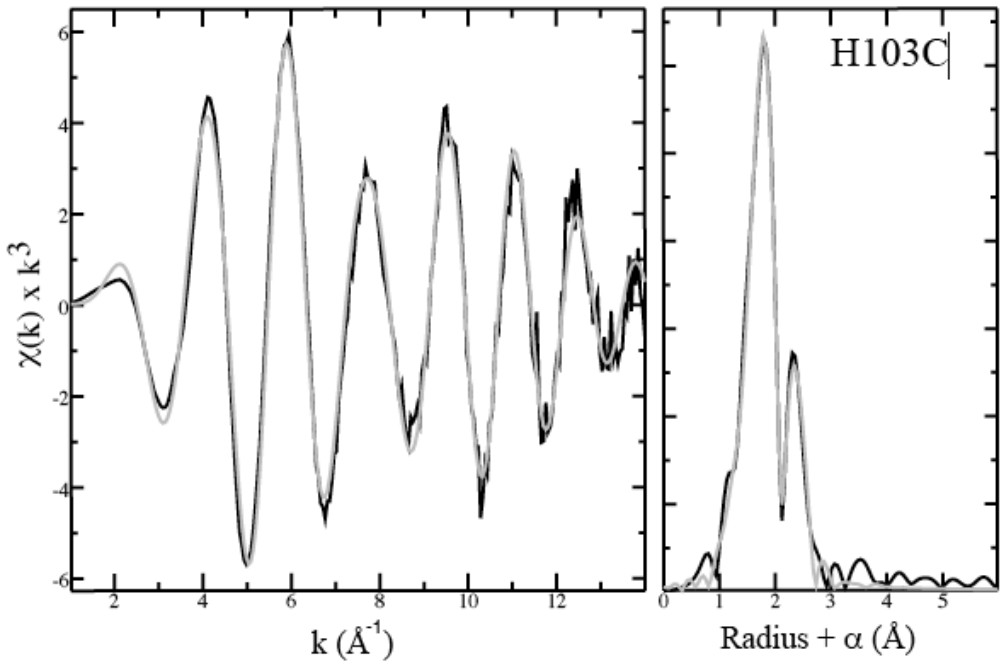


**Figure S3. Best 4-shell fit to the Fra2(H103C)-Grx3 heterodimer.** Fit details are found in Table 1, fit H. Gray line = fit, black line = unfiltered data.

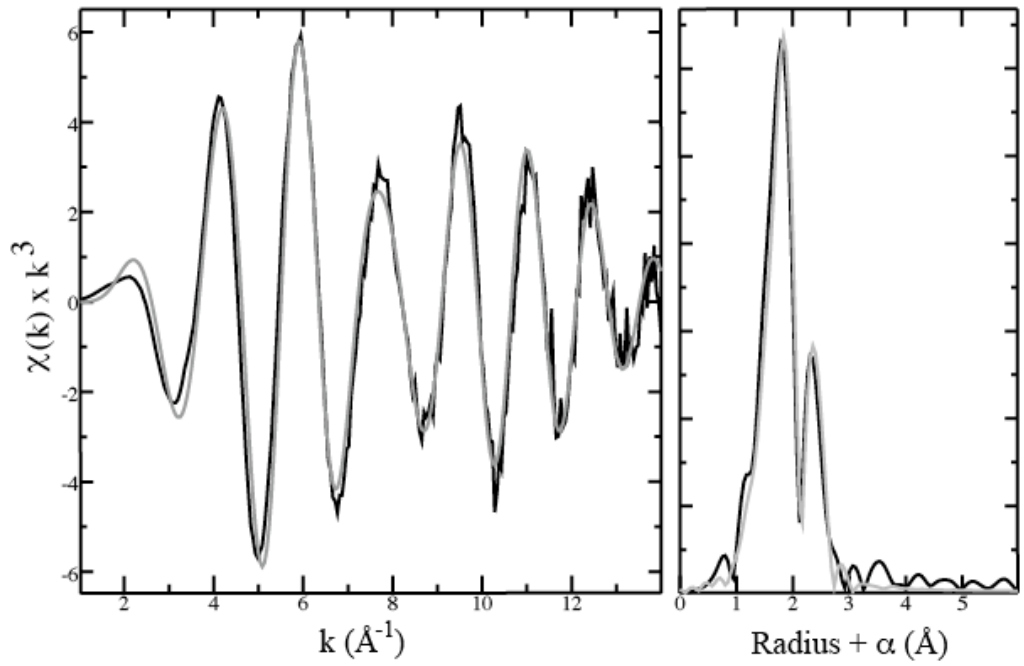


**Figure S4. Best 2-shell fit to the Fra2(H103C)-Grx3 heterodimer.** Fit details are found in Table 1, fit F. Gray line = fit, black line = unfiltered data.

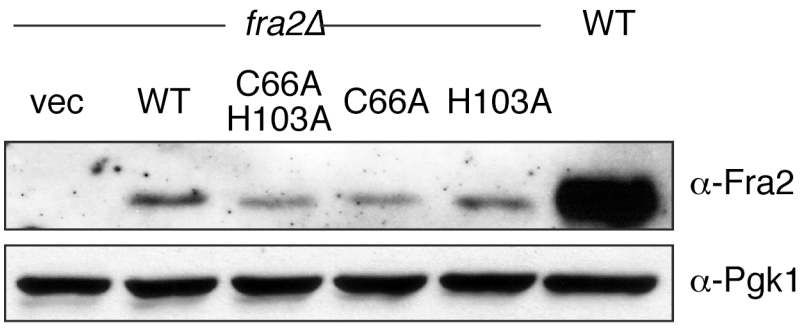


**Figure S5. SDS-PAGE analysis of yeast strains used for the S1 nuclease protection assay (see Fig. 6) immunoblotted with α-Fra2 and α-Pgk1 (loading control) antibodies.** Plasmid-encoded WT and mutant Fra2 is expressed at lower levels than the native genome-encoded Fra2, however plasmid-encoded WT Fra2 is able to fully complement Fe-dependent inhibition of Aft1 (see Fig. 6, lane 3).