**Supplementary file 3. Predicted and experimentally annotated protein domains and motifs depicted in protein cross-link networks.**

Native or *in vitro* reconstituted recombinant protein complexes were prepared and cross-linked as described in materials and methods. The identified inter- and intra-protein cross-links are visualized as protein network representations in Figure 1C and Figure 4A and are listed in Tables S3 and S4.

| Protein | Domain/Motif | Start | End | Reference |
| --- | --- | --- | --- | --- |
| AME1 | MIND binding | 1 | 15 | (Hornung et al., 2014) |
| AME1 | coiled coil | 177 | 272 | MARCOIL prediction  (Zimmermann et al., 2018) |
| AME1 | Okp1 binding | 129 | 247 | (Schmitzberger et al., 2017) |
| AME1 | Nkp1-Nkp2 binding | 268 | 292 | (Schmitzberger et al., 2017) |
| CENPA/  CSE4 | histone core | 113 | 227 | (Zhou et al., 2011) |
| CENPA/  CSE4 | CATD | 166 | 201 | (Zhou et al., 2011) |
| CHL4 | IML3 binding | 361 | 458 | (Hinshaw and Harrison, 2013) |
| CTF19 | RWD | 134 | 361 | Sequence alignment model / secondary structure prediction |
| H2A | histone core | 14 | 90 | (Wang et al., 2013) |
| H2B | histone core | 34 | 105 | (Wang et al., 2013) |
| H3 | histone core | 63 | 132 | (Wang et al., 2013) |
| H4 | histone core | 24 | 96 | (Wang et al., 2013) |
| IML3 | dimerization | 169 | 198 | (Hinshaw and Harrison, 2013) |
| IPL1 | kinase domain | 104 | 355 | Sequence alignment model |
| MCM21 | RWD | 156 | 368 | Sequence alignment model / secondary structure prediction |
| MIF2 | MTW1C binding | 1 | 35 | (Hornung et al., 2014) |
| MIF2 | signature motif | 238 | 312 | (Hornung et al., 2014) |
| MIF2 | IML3/CHL4 binding | 256 | 549 | (Hinshaw and Harrison, 2013) |
| MIF2 | cupin fold | 439 | 526 | (Hornung et al., 2014) |
| OKP1 | core domain | 166 | 211 | (Schmitzberger et al., 2017) |
| OKP1 | coiled coil | 183 | 290 | MARCOIL prediction |
| OKP1 | Ame1 binding | 234 | 264 | (Schmitzberger et al., 2017) |
| OKP1 | Ctf19-Mcm21 binding „segment1“ | 321 | 329 | (Schmitzberger et al., 2017) |
| OKP1 | coiled coil | 346 | 381 | MARCOIL prediction |
| OKP1 | Nkp1-Nkp2 | 357 | 375 | (Schmitzberger et al., 2017) |
| SLI15 | CEN targeting | 1 | 227 | (Campbell and Desai, 2013) |
| SLI15 | MT binding | 229 | 565 | (Fink et al., 2017) |
| SLI15 | SAH | 517 | 565 | (Fink et al., 2017) |
| SLI15 | IPL1 binding IN-box | 630 | 681 | (Adams et al., 2000, Kang et al., 2001) |

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