

Supporting information

Table S1. The oligonucleotide sequences used in this work.

| Title | Sequences (5' to 3') |
|--------------|--|
| P1 | Protein A antibody-TTT TTT TTT TTT TTT GTG AGG TTC GTG TGA TG |
| P2 | GCG TGT ATC CCA TGT GTC CCT CAC TGA GTT TTT TTT TT-PBP2a antibody |
| HP | CAT CAC ACG GAC ACA TGG GAT ACA CGC CCA TCG TGT ACG CGT GTA TCC CAT GTG TCA CTT TTA CTA TAC AA |
| PER probe | TTA GGGm CmCC GGT TTT CCGm GmGC CCT AAC CCT AAC C CC TCA GCA GTA ACT ATA CAA AAA GTA ATT GTA TAG TAA |

Supplemented experimental details:

Assembly of the probes: Before the experiments, s1 sequence and s2 sequence were mixed in TE buffer, annealed for 5 min at 95 °C, and cooled down to 25 °C to form assembly probes for sensing.