

**Table S2. FISH Probes Used in This Study, Related to Figures 1 and 2**

| GENE                      | PROBE #  | SEQUENCE   |
|---------------------------|----------|--|
| Yeast<br>ASH1             | ASH1-7   | AGG AGC <b>TAT</b> TTG CAT GAG AAT CCG GAC CAG CAG ATA ATG CAT GCA GTG GT    |
|                           | ASH1-8   | TTG GCG ACA CAT TGA GCG AAT GAA ACG AAT <b>ACT</b> TCC TAG GAC TTG CTG AA    |
|                           | ASH1-9   | AGT TAC ATA GCT GAT CTT GCT TTC TTG GCG ACC ACG ATG GCC TCC AAC AG           |
|                           | ASH1-10  | TCA ATT TCG CAG TTG CGT TCG GGG ACG AAT TCT TTG TCT ATT CCA TTG GA           |
| Chicken<br>$\beta$ -actin | KLT-4    | TTG TTT TAT GCG CAT TTA TGG GTT TTG TTT CAT CAC AGG GGT GTG GGT GTT<br>GGT A |
|                           | KLT-15   | AAT CAA AGT CCT CAG ATG CAT TGT AGA ACT TTG GGG GCG TTC GCT CCA ACA          |
|                           | KLT-18   | ACA TAA TTT ACA GAC AAG CAA TTA TCA TCT AAC ACC ATT AAT TGG TAC CGG<br>CTC   |
|                           | KLT-19   | ATT CAC ATC TAT CAC TGG GGA ACA CAG CCC GCT TGC TTG ACA AAC CAA AAA<br>TA    |
| Chicken<br>GAPDH          | cGAPDH1  | ATC CGT TGA CTC CGA CTT TCA CCA TCT CGC CTT TAT AGT GTT CCT GCT GC           |
|                           | cGAPDH2  | TCT CAG CCT TGA CAG TGC CCT TGA AGT GTC CGT GTG TAG AAT CAT ATT TG           |
|                           | cGAPDH3  | ATG ATA ACA CGC TTA GCA CCA CCC TTC AGA TGA GCC CCA GCC TTC TCC AT           |
|                           | cGAPDH4  | CAT CAA GTC CAC AAC ACG GTT GCT GTA TCC AAA CTC ATT GTC ATA CCA GG           |
| MS2                       | MS2_LK51 | TTT CTA GGC AAT TAG GTA CCT TAG GAT CTA ATG AAC CCG GGA ATA CTG CAG          |

Modified thymidine nucleotides that covalently bound fluorescent dye are marked with bold capital T.

Design, synthesis and labeling of probes was performed as described previously (Femino et al., 1998;

Zenklusen et al., 2008).