

Supplementary Table 3. Primer sequences used for qRT-PCR.

| Gene symbol | Forward primer (5'-3') | Reverse primer (5'-3') |
|--------------------|-------------------------------|-------------------------------|
| CCAT1 | GCCGTGTTAAGCATTGCGAA | AGAGTAGTGCCTGGCCTAGA |
| FRAT1 | CCACGCCCTGTCTAAAGTGT | TGCAAAACACTGCGCTCTTC |
| miR-490-3p | CAACCTGGAGGACTCCATGC | |
| GAPDH | GGAGCGAGATCCCTCCAAAAT | GGCTGTTGTCATACTTCTCATGG |
| U6 | CTCGCTTCGGCAGCACA | AACGCTTCACGAATTTGCGT |

Supplementary Table 4. Sequence information for cell transfection.

| Gene | Sequence |
|----------------------|------------------------|
| si-CCAT1 | GCAATGCCCTGTTAAGTAA |
| si-FRAT1 | GCTAGTGCTCTCTGGAAAC |
| miR-490-3p mimics | CAACCUGGAGGACUCCAUGCUG |
| miR-490-3p inhibitor | CAGCAUGGAGUCCUCCAGGUUG |