





```
-----GCAGCCGTGG---TTAAAAGATG--AATAAAGTGAAATGAGGTAAAGCC
Mouse
Cow
                    ---GAGATGCATCTTTGACTTTTAAAAGGTGGAAAGGTGAAGCTAG---GAGTA
Human
                 CCTGTTGAACCATATTCCTGA--TTTAAAAGTTGGAAACGTGGTGAACCTAG---AAGTA
                CCTGTTGAACCATATTCCTGA--TTTAAAAGTTGGAAACGTGGTGAACCTAG---AAGTA
                                         ##########
Mouse
                 TCTTTTTGGGGGGGGG-GGGATGTCTTTAGATCAGAGGATGCC
                 TCTCATTGCCGGGTTCATTGTGTTTCCCGTTT--CCGAGGTCCT---AGTTCCCCAGTTC
Cow
                 T-TTGTTGCTGGGTT----TGTCTTCAGGTT--CTGTTG-C
Human
Pan troglodytes
                 T-TTGTTGCTGGGTT----TGTCTTCAGGTT--CTGTTG-
                   #############
                                     #############
                                                                           ##
Mouse
                 CCCTCCCAGTCTGGGTCACCTTACAGCTT-
Cow
                 CCCACCGGGTCTGGGTTACTCTGCAACTC'
Human
                 CCCACCTAGTCTGGGTTACTCTGCAGCTA-
Pan troglodytes
                 CCCACCTAGTCTGGGTTACTCTGCAGCTA-
                 #####################################
                 TGCAG TTG GATTAACTGTGAATTCACAGGGCTG----GTGGGGCCTGGGTG
Mouse
                 GGCAGACGEGATTAACTGGGAATTCGCAAGGGTGTGT--GT-GGGCGTGGG-GPTG
Cow
                 GGTAGACG GATTAACTGAGAATTCACAAGGGTGGGTCAGTAGGGGGGTGTG-CLCGLCAG
Human
Pan troglodytes
                 GGTAGACGEGATTAACTGAGAATTCACAAGGGTGGGTCGGTGGGGGGGTGTG-C
                 Mouse
                 GGTGCCTGGGAGAATAGGGGGTGGGTAGGGTAGGAGGCTTGAGGGGGGGAGGAGCAGGACC
Cow
                     -----CCAAGTATGGTTGAG-----CC
Human
                           ----AGGGGTGGGT-----CTAAG-GTGATAGAG----CC
                            ----AGGGGTGGGT-----CCTAAG-GTGATAGAG-----CC
Pan troglodytes
                                 ##########
                          \ATCTATCGCCTTGAGCCGTTGGCCTTCAGATAGGCTGATTTGGTT<mark>GG</mark>TG<mark>T</mark>
Mouse
                 TACC
Cow
                 TTAC
                           ATGTAGAGCCT----CTATTTTCATTTTCCTACATTGGACTGGATGG-CT
Human
Pan troglodytes
                          ATCTAGAGACT----CCA--
                 ########################
                 CTTGC CTTTCTGTGG-----
Mouse
Cow
                 CTTA- CCT TACAGGTGACTCCTT
                 TTTA-ACGTTCTGCTG-----
                 TTTA-ACGTTCTGCT----
Pan troglodytes
```

Supplemental Fig.1:

(A) The CpG-dinucleotide density across the genomic NANOG sequence is illustrated Yellow boxes 1 and 2 indicate putative promoter regions. Black arrowheads indicate the location of the primers used for sodium-bisulfite sequencing. (B) phylogenetic comparison of the NRR between mouse, cow, human and chimp. The OCT3/4 (purple box) and SOX2 (blue box) binding sites are indicated. All CpG-dinucleotides (conserved between human and chimp) are indicated by red boxes. TATA-box is indicated by black box.