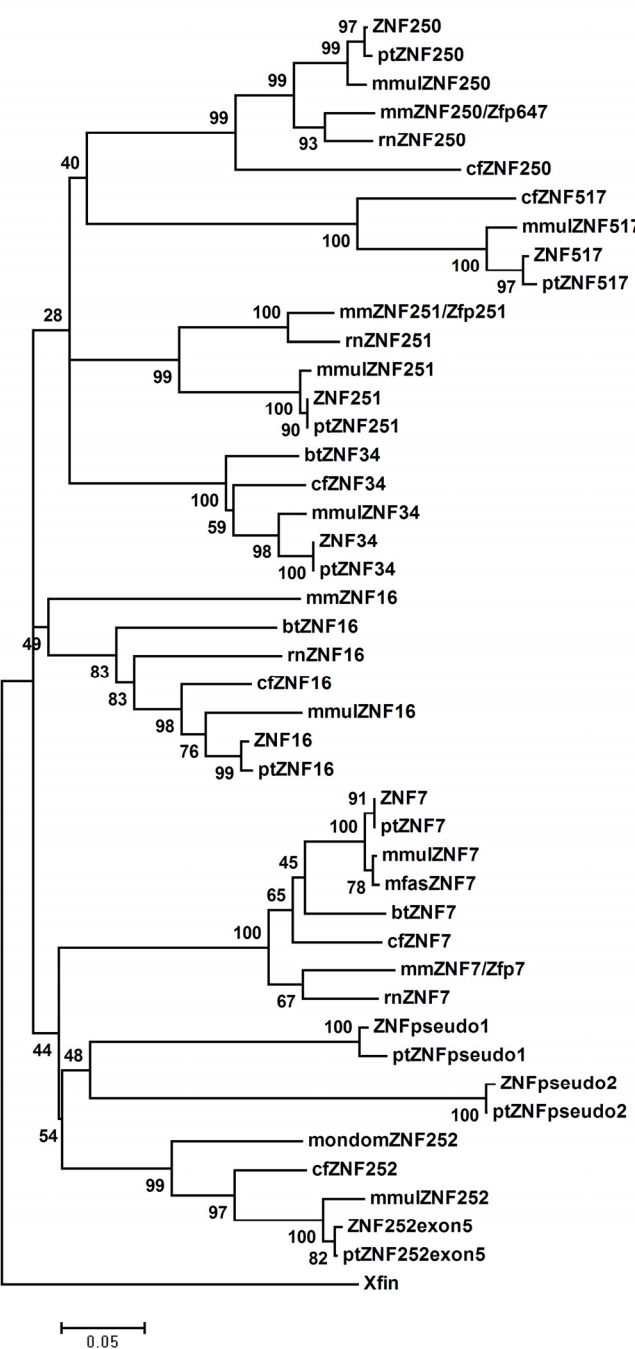
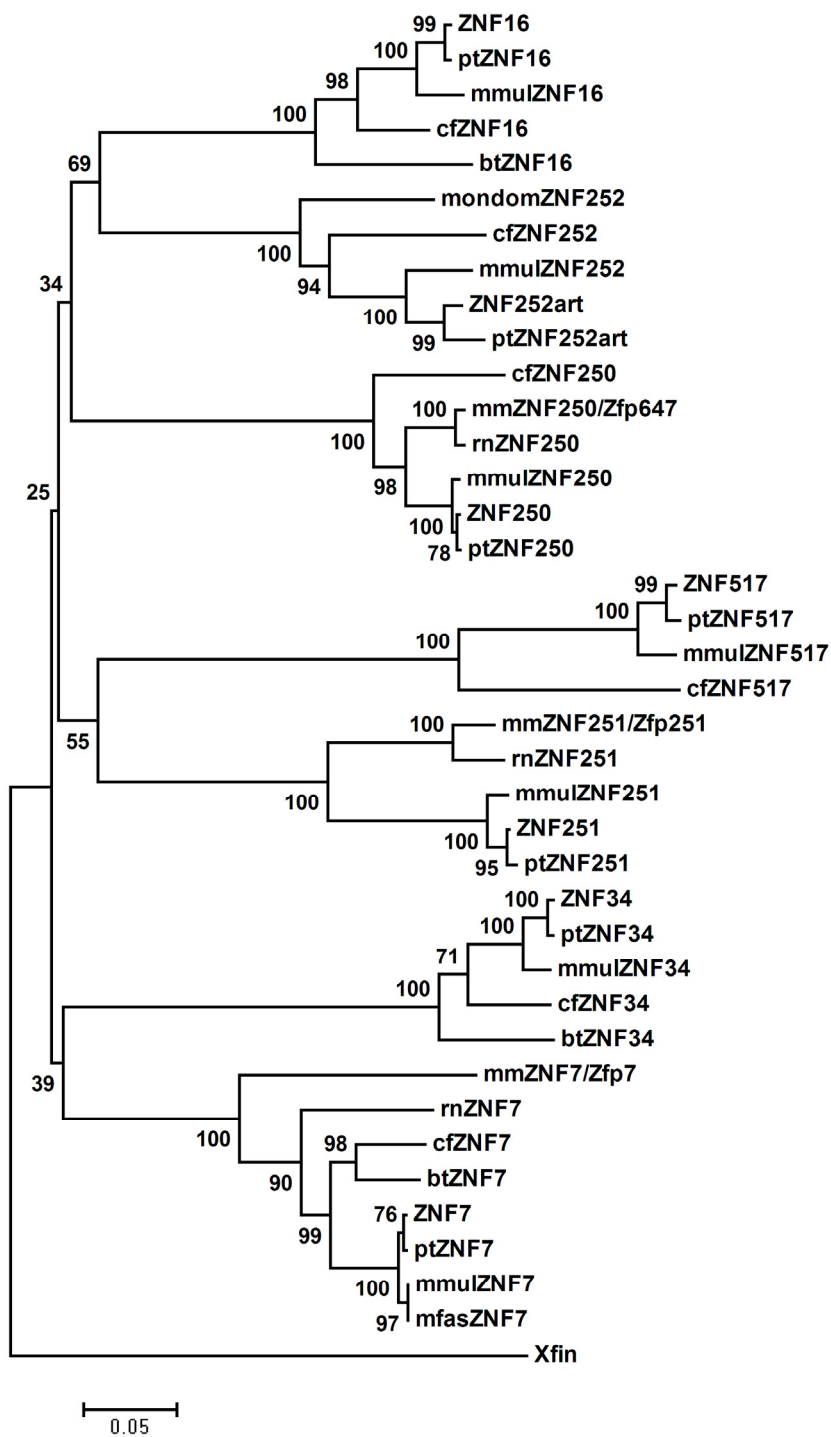


Additional file 4: Phylogeny of the human 8q24.3 ZNF genes and their mammalian orthologs

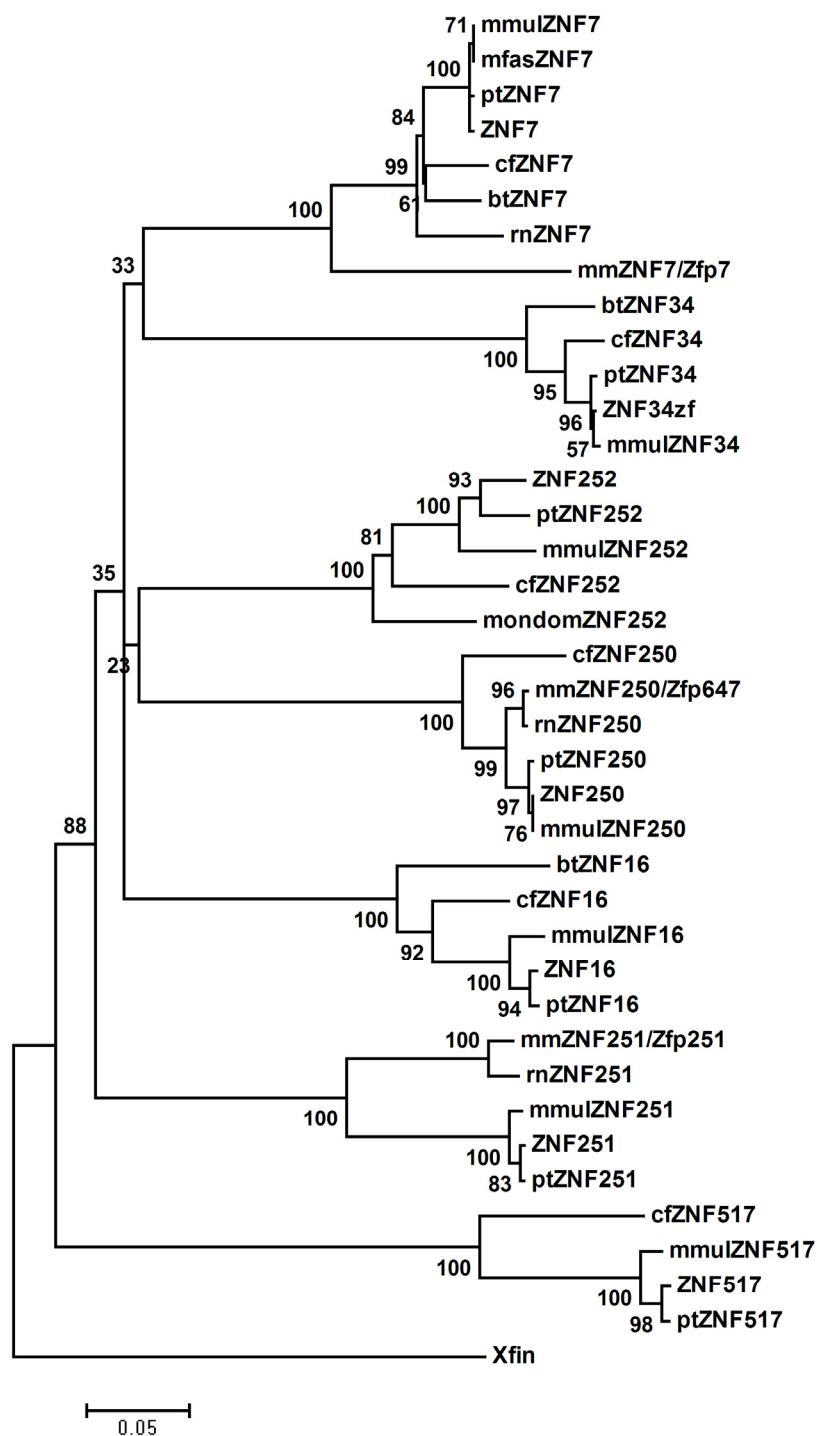
Phylogenetic trees constructed with MEGA4 (Kumar et al., 2008. Brief Bioinform. 9:299-306) after alignments of the 8q24.3 ZNF gene sequences and all their orthologs with Clustal W 1.83 (Thompson et al. 1994. Nucleic Acids Res. 22:4673-80) with the neighbor-joining algorithm after 1000 bootstrap cycles (numbers on branch points indicate %). As operational taxonomic units the gene names are given (the human orthologs without affix). Species designation: Chimpanzee (*Pan troglodytes*, pt), rhesus monkey (*Macaca mulatta*, mmul; *Macaca fascicularis*, mfas), dog (*Canis familiaris*, cf), cow (*Bos taurus*, bt), mouse (*Mus musculus*, mm), rat (*Rattus norvegicus*, rn) and opossum (*Monodelphis domestica*, mondom). Outlier for rooting: Xfin (*Xenopus laevis*). Full-length cDNA and protein sequences are given in Additional files 1, 2. The suffix "art" indicates artificially combined sequences ignoring stop codons.



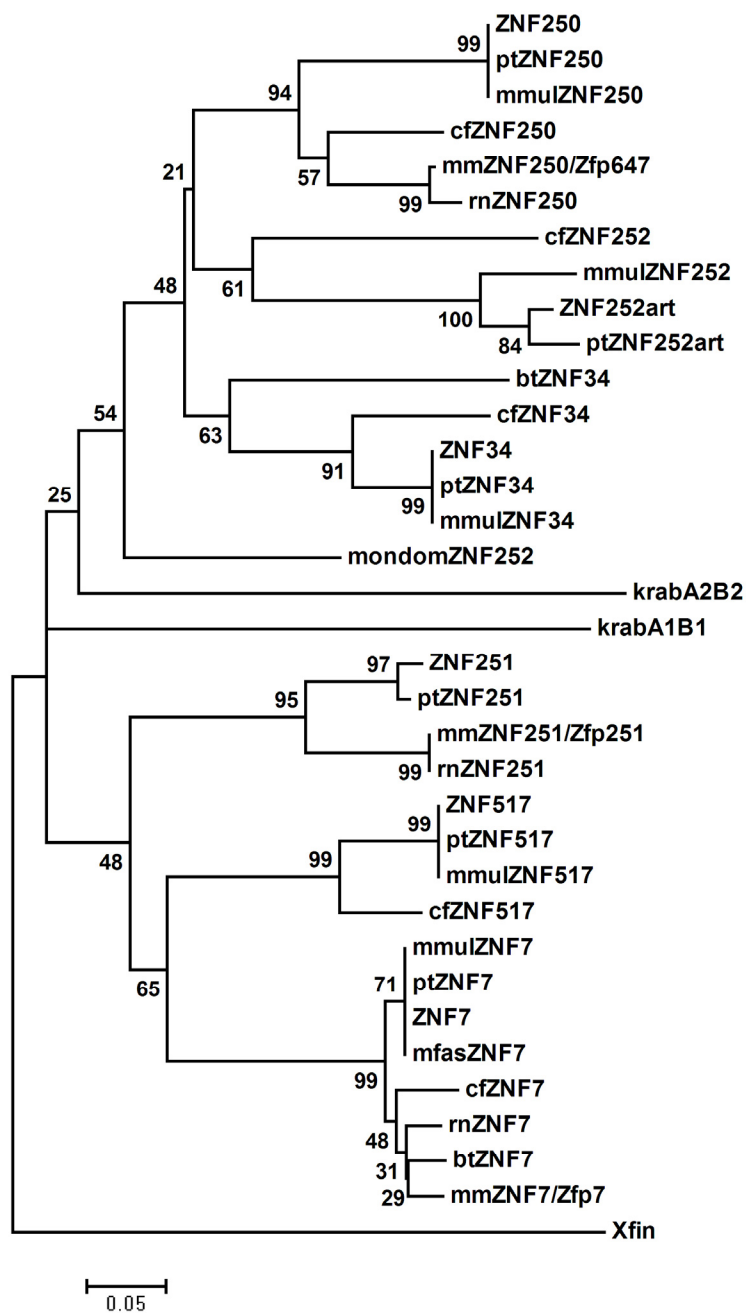
A: Input sequences: Full-length nucleotide sequences



B: Input sequences: Full-length amino acid sequences



C: Input sequences: Amino acid sequences of the zinc finger regions (all aligned zinc fingers of each gene product)



D: Input sequences: Amino acid sequences of the KRAB domains