Table S2: ZFTS140 dataset of 140 experimentally validated zinc finger target site sequences, used as an independent ("blind") test set in this study. Target 5' - 3' = DNA sequence of zinc finger target site; Activity Label = actual activity, determined experimentally; Prediction: activity predicted by ZiFOpT; Confidence Score = confidence in prediction, ranging from 0 (lowest) to 9 (highest); see Methods for additional details.

Target 5' - 3'	Activity Label	Prediction	Confidence Score
GGTGGAGCA	Active	Active	9
GGTGTCGAA	Active	Active	9
GTAGAAGAG	Active	Active	9
GTAGCAGTC	Active	Active	9
GTAGCTGCG	Active	Active	9
GTCGTTGCC	Active	Active	9
GTCTGAGTA	Active	Active	9
GTGGATGGT	Active	Active	9
GTGGCAGGA	Active	Active	9
GTGGCCGTG	Active	Active	9
TAATTGGGG	Active	Active	9
TCTGAGGAC	Active	Active	9
TCTGGTGAC	Active	Inactive	9
TGGGATGTG	Active	Active	9
TGGGCAGTG	Active	Active	9
TGGGGGGCA	Active	Active	9
TGGGTCGAC	Active	Inactive	9
TGTGACGGC	Active	Active	9
TGTGGGGGG	Active	Active	9
TTAGGGGAC	Active	Active	9
TGGGATGGA	Active	Active	9
GACGGCAAC	Active	Active	9
GTAGAGGGT	Active	Active	9
GCCGGAGAC	Active	Active	9
GCATGGGCA	Active	Active	9
GGTGATGCT	Active	Active	9
GCCGAAGAG	Active	Active	9
GACGGCTGT	Active	Active	9
GCTGCAGGT	Active	Active	9
GAGGATGTA	Active	Active	9
GCCGAAGTT	Active	Active	9
GACGGAGCT	Active	Active	9
GCTGATGGC	Active	Active	9
GCGGTTGCA	Active	Active	9
GACGGAGTC	Active	Active	9
GCAGGTGGA	Active	Active	9
GGGGAAGGT	Active	Active	9
GCCGCAGTG	Active	Active	9
GATGGTGAG	Active	Active	9
GGTTGGGAG	Active	Active	9

GCAGGCGCA	Active	Active	9
GAGGAGGGT	Active	Active	9
GGGGAAGGA	Active	Active	9
GAGGAGAAC	Active	Active	9
GGAGCCGGC	Active	Active	9
GCTGAGGGG	Active	Active	9
GCAGAAGTA	Active	Active	9
GAAGTAGCA	Active	Active	9
GCTGAAGCG	Active	Active	9
GATGATGGC	Active	Active	9
GAGGAAGCT	Active	Active	9
GTGGATGCA	Active	Active	9
GTGGCAGAA	Active	Active	9
TAAGAAGAG	Active	Active	9
GACGGAGGA	Active	Active	9
GATGAAGAA	Active	Active	9
GTAGCGGGT	Active	Active	9
GGTTAGGAT	Active	Active	9
GCGGCGGCC	Active	Active	9
GGTTGAGCG	Active	Active	9
GAGGAGGAG	Active	Active	9
GAGGCGTGT	Active	Active	9
GGAGGTGAG	Active	Active	9
GGAGGTGCC	Active	Active	9
GAAGAAGAG	Active	Active	9
GCGGCCGAA	Active	Active	9
GGAGAAGTA	Active	Active	9
GCTGAGGGC	Active	Active	9
GAGGACTGC	Active	Active	9
GGGGCTGCA	Active	Active	9
GAGGTAGTG	Active	Active	9
GAGGCGGAC	Active	Active	9
TGCGATGGA	Active	Active	9
GCTGGTGTC	Active	Active	9
TGGGCCGAC	Active	Active	9
GAGGCAGAA	Active	Active	9
GAAGCAGGC	Active	Active	9
GAGGATGGG	Active	Active	9
GCATGAGCT	Active	Active	9
GCTGGTGGC	Active	Active	9
GAGGCCTGT	Active	Active	9
GCTGCGGTG	Active	Active	9
GGAGGAGAT	Active	Active	9
GTGGTGGCT	Active	Active	9
GGATGAGCC	Active	Active	9
GCTGACTGC	Active	Active	9
GCGGGAGGG	Active	Active	8
GCGGTAGCT	Active	Active	8

GCTGACGGT	Active	Active	8
GCTGAGGAA	Active	Active	8
GCTGCAGAA	Active	Active	8
GCTGGTGAA	Active	Active	8
GCTGTCGAA	Active	Active	8
GCTGTTGGG	Active	Active	8
GGAGACGGT	Active	Active	8
GGCGACGGC	Active	Active	8
GGCGAGGAA	Active	Active	8
GGCGCAGGG	Active	Active	8
GGGGCAGTG	Active	Active	8
GGGGCGGGT	Active	Active	8
GGGGCTGAG	Active	Active	8
GGGGGAGGG	Active	Active	8
GGTGAAGAG	Active	Active	8
GGTGCCGAG	Active	Active	8
GACTTTGGT	Inactive	Active	7
GAGGCAGCA	Active	Active	7
GAGGCCGAG	Active	Active	7
GAGGCCGGC	Active	Active	7
GAGGGAGGA	Active	Active	7
GAGGTGGGT	Active	Active	7
GCAGCAGGG	Active	Active	7
GCAGGGGCG	Active	Active	7
GCAGGTGCT	Active	Active	7
GCCGCGGCC	Active	Active	7
GCGGCTGCC	Active	Active	7
GCGGCTGCG	Active	Active	7
GAAGGGTGC	Active	Active	6
GAAGGTGTT	Active	Active	6
GAAGTCTGC	Active	Active	6
GACGAAGGC	Active	Active	6
GACGACGAA	Active	Active	6
GAGGAGGTC	Active	Active	6
GTCGTGGCC	Inactive	Active	5
GTAGGAGAG	Inactive	Active	5
GTCGGCGTA	Inactive	Active	5
GGTGCTGCG	Inactive	Active	5
GAAGGGGCC	Active	Active	5
GCAGCCGCA	Inactive	Active	4
GGAGTTGTT	Inactive	Active	4
GTCTGAGCA	Inactive	Active	4
GGGTTTGCA	Inactive	Active	4
GGTGATGAA	Inactive	Active	3
GTCGCAGTA	Inactive	Active	3
GCTTAGGGT	Inactive	Active	3
GCGTTTGAG	Inactive	Active	2
GTCGCTGTC	Inactive	Active	1

TCTGGAGAT	Inactive	Inactive	1
TGTGAATGT	Inactive	Inactive	1
GGCGGAGCA	Inactive	Active	1
GGTTTTGAG	Inactive	Active	0