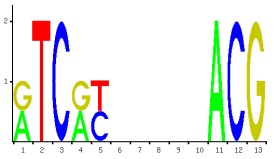
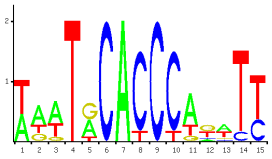
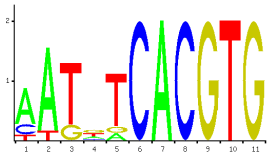
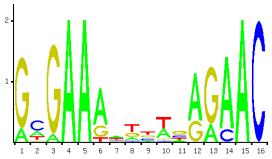
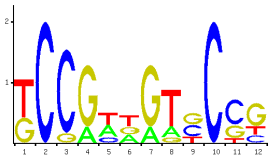
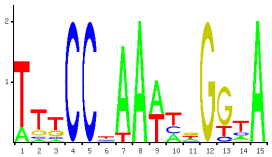
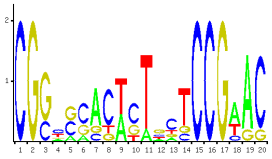
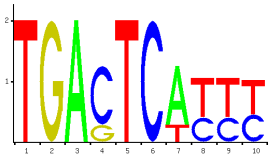
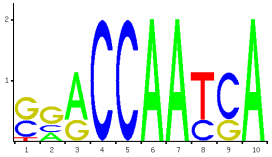
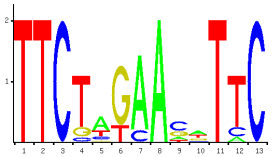
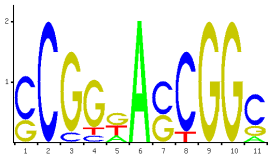
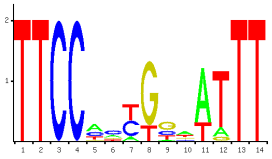
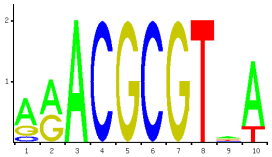
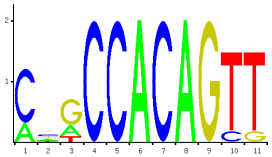
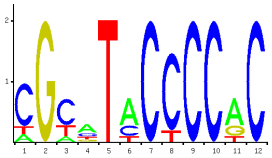
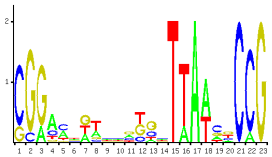
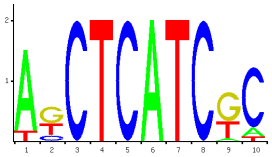
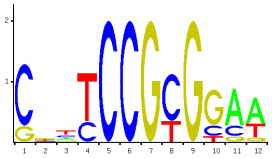
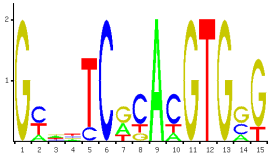
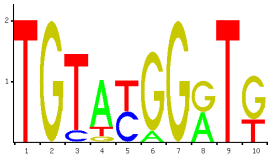
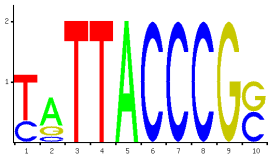
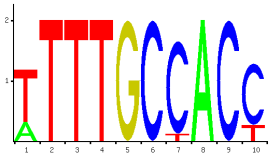
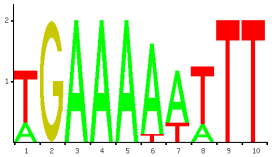
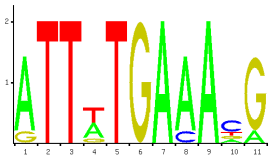
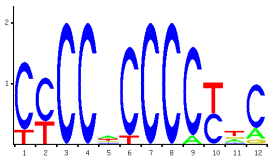
Table S3 TFBS Profiles for *S. cerevisiae*

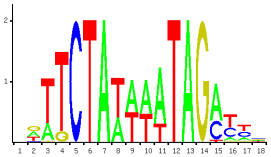
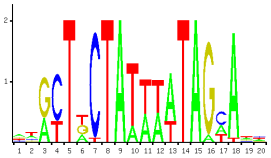
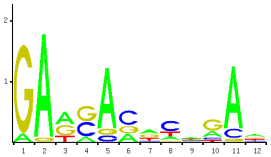
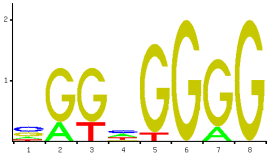
Motif	Position Frequency Matrix	Logo
ID: MY0001 NAME: ABF1 SOURCE: Church Lab: ABF1.mot LINK: http://atlas.med.harvard.edu/motifs/ABF1.mot	A [11 0 0 10 0 2 11 3 0 4] C [0 0 11 0 6 3 0 8 0 0] G [0 0 0 1 0 0 0 0 11 7] T [0 11 0 0 5 6 0 0 0 0]	
ID: MY0002 NAME: AFT1 SOURCE: Church Lab: AFT1.mot LINK: http://atlas.med.harvard.edu/motifs/AFT1.mot	A [4 5 5 0 4 0 9 0 0 0 6 1 4 0 0] C [0 0 0 0 0 9 0 8 9 8 0 1 1 1 3] G [0 2 1 0 4 0 0 0 0 0 1 4 1 0 0] T [5 2 3 9 1 0 0 1 0 1 2 3 3 8 6]	
ID: MY0003 NAME: CBF1 SOURCE: Church Lab: CBF1.mot LINK: http://atlas.med.harvard.edu/motifs/CBF1.mot	A [7 9 0 2 1 0 10 0 0 0 0] C [2 0 0 1 0 10 0 10 0 0 0] G [0 0 2 4 1 0 0 0 10 0 10] T [1 1 8 3 8 0 0 0 0 10 0]	
ID: MY0004 NAME: CCA SOURCE: Church Lab: CCA.mot LINK: http://atlas.med.harvard.edu/motifs/CCA.mot	A [2 3 1 13 13 9 5 2 1 5 2 9 3 11 13 0] C [0 7 0 0 0 0 3 1 4 1 3 0 0 2 0 13] G [11 1 12 0 0 3 2 4 4 1 6 4 10 0 0 0] T [0 2 0 0 0 1 3 6 4 6 2 0 0 0 0 0]	
ID: MY0005 NAME: CSRE SOURCE: Church Lab: CSRE.mot LINK: http://atlas.med.harvard.edu/motifs/CSRE.mot	A [0 0 0 2 4 3 2 2 0 0 0 0] C [0 10 9 0 2 0 0 0 4 10 6 2] G [4 0 1 8 0 3 8 1 4 0 3 6] T [6 0 0 0 4 4 0 7 2 0 1 2]	

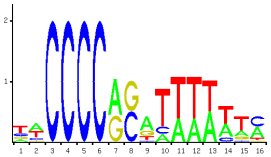
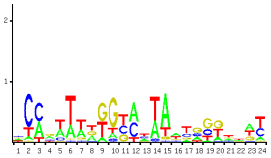
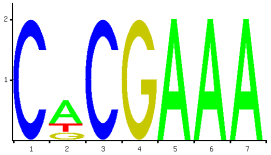
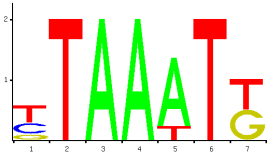
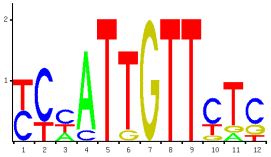
ID: MY0006 NAME: ECB SOURCE: Church Lab: ECB.mot LINK: http://atlas.med.harvard.edu/motifs/ECB.mot	A [2 1 1 0 0 2 10 11 6 3 3 0 0 2 11] C [0 1 1 11 11 2 0 0 0 3 1 0 1 2 0] G [0 2 3 0 0 3 0 0 0 0 4 11 8 1 0] T [9 7 6 0 0 4 1 0 5 5 3 0 2 6 0]	
ID: MY0007 NAME: GAL4 SOURCE: Church Lab: GAL4.mot LINK: http://atlas.med.harvard.edu/motifs/GAL4.mot	A [0 0 0 1 1 1 5 0 3 0 1 1 1 0 0 0 0 4 6 0] C [7 0 2 3 3 4 1 5 0 4 0 2 4 1 7 7 0 1 0 6] G [0 7 5 1 3 2 1 1 0 2 0 3 1 1 0 0 7 0 1 1] T [0 0 0 2 0 0 0 1 4 1 6 1 1 5 0 0 0 2 0 0]	
ID: MY0008 NAME: GCN4 SOURCE: Church Lab: GCN4.mot LINK: http://atlas.med.harvard.edu/motifs/GCN4.mot	A [0 0 18 0 0 0 14 0 0 0] C [0 0 0 14 0 18 0 7 7 8] G [0 18 0 4 0 0 0 0 0 0] T [18 0 0 0 18 0 4 11 11 10]	
ID: MY0009 NAME: HAP2_3_4 SOURCE: Church Lab: HAP2_3_4.mot LINK: http://atlas.med.harvard.edu/motifs/HAP2_3_4.mot	A [0 3 9 0 0 13 13 0 0 13] C [5 3 0 13 13 0 0 4 9 0] G [7 7 4 0 0 0 0 0 4 0] T [1 0 0 0 0 0 0 9 0 0]	
ID: MY0010 NAME: HSE SOURCE: Church Lab: HSE.mot LINK: http://atlas.med.harvard.edu/motifs/HSE.mot	A [0 0 0 0 8 0 12 14 2 5 0 1 0] C [0 0 14 1 2 0 2 0 7 1 0 2 14] G [0 0 0 2 1 11 0 0 4 4 0 0 0] T [14 14 0 11 3 3 0 0 1 4 14 11 0]	

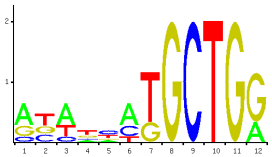
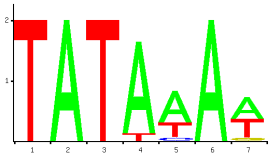
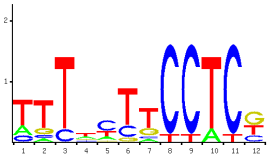
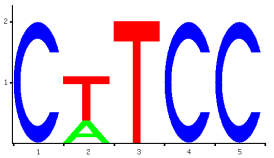
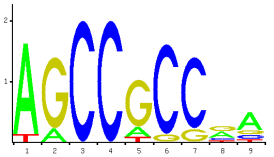
ID: MY0011 NAME: LEU3 SOURCE: Church Lab: LEU3.mot LINK: http://atlas.med.harvard.edu/motifs/LEU3.mot	A [0 0 0 0 2 9 0 0 0 0 1] C [6 9 1 1 0 0 5 8 0 0 6] G [3 0 8 7 4 0 4 0 9 9 2] T [0 0 0 1 3 0 0 1 0 0 0]	
ID: MY0012 NAME: LYS14 SOURCE: Church Lab: LYS14.mot LINK: http://atlas.med.harvard.edu/motifs/LYS14.mot	A [0 0 0 0 7 4 2 0 1 7 12 2 0 0] C [0 0 16 16 5 7 7 0 4 3 0 0 0 0] G [0 0 0 0 1 3 0 13 8 3 0 1 0 0] T [16 16 0 0 3 2 7 3 3 3 4 13 16 16]	
ID: MY0013 NAME: MCB SOURCE: Church Lab: MCB.mot LINK: http://atlas.med.harvard.edu/motifs/MCB.mot	A [10 9 16 0 0 0 0 0 6 13] C [2 0 0 16 0 16 0 0 3 0] G [4 7 0 0 16 0 16 0 4 0] T [0 0 0 0 0 0 0 16 3 3]	
ID: MY0014 NAME: MET31_32 SOURCE: Church Lab: MET31_32.mot LINK: http://atlas.med.harvard.edu/motifs/MET31_32.mot	A [2 2 2 0 0 8 0 8 0 0 0] C [6 3 0 8 8 0 8 0 0 1 0] G [0 2 5 0 0 0 0 0 8 0 1] T [0 1 1 0 0 0 0 0 0 7 7]	
ID: MY0015 NAME: MIG1a SOURCE: Church Lab: MIG1.mot LINK: http://atlas.med.harvard.edu/motifs/MIG1.mot	A [1 0 1 4 0 5 0 0 0 0 5 0] C [6 0 5 2 0 2 8 7 8 8 0 8] G [0 8 0 1 0 0 0 0 0 0 2 0] T [1 0 2 1 8 1 0 1 0 0 1 0]	

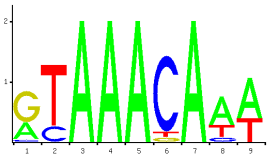
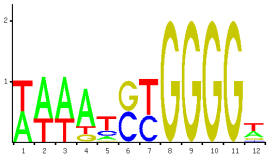
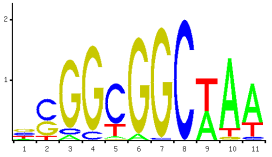
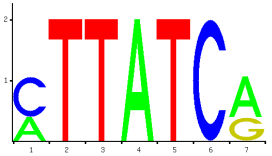
ID: MY0016 NAME: OAF1 SOURCE: Church Lab: OAF1.mot LINK: http://atlas.med.harvard.edu/motifs/OAF1.mot	A [0 0 2 6 4 3 3 3 3 3 3 0 1 3 0 2 10 6 2 1 0 1 0] C [8 1 0 2 4 2 0 1 3 3 2 2 3 3 0 0 0 0 5 2 10 9 0] G [2 9 8 1 1 2 4 1 2 2 4 4 5 2 0 0 0 0 2 4 0 0 10] T [0 0 0 1 1 3 3 5 2 2 1 4 1 2 10 8 0 4 1 3 0 0 0]	
ID: MY0017 NAME: PAC SOURCE: Church Lab: PAC.mot LINK: http://atlas.med.harvard.edu/motifs/PAC.mot	A [16 0 0 0 0 18 0 0 1 2] C [0 3 18 0 18 0 0 18 0 15] G [0 9 0 0 0 0 0 0 11 0] T [2 6 0 18 0 0 18 0 6 1]	
ID: MY0018 NAME: PDR3 SOURCE: Church Lab: PDR3.mot LINK: http://atlas.med.harvard.edu/motifs/PDR3.mot	A [0 3 2 0 0 0 0 0 0 0 7 6] C [8 2 3 3 10 10 0 7 0 2 2 0] G [2 3 1 0 0 0 10 0 10 7 1 1] T [0 2 4 7 0 0 0 3 0 1 0 3]	
ID: MY0019 NAME: PHO4 SOURCE: Church Lab: PHO4.mot LINK: http://atlas.med.harvard.edu/motifs/PHO4.mot	A [0 1 2 1 0 0 2 0 6 1 0 0 0 1 0] C [0 3 1 2 1 6 0 4 0 4 0 0 0 2 0] G [6 0 2 1 0 0 3 1 0 0 6 0 6 3 5] T [0 2 1 2 5 0 1 1 0 1 0 6 0 0 1]	
ID: MY0020 NAME: RAP1 SOURCE: Church Lab: RAP1.mot LINK: http://atlas.med.harvard.edu/motifs/RAP1.mot	A [0 0 0 46 0 7 0 29 0 0] C [0 0 8 0 30 0 0 0 0 0] G [0 60 0 5 0 53 60 31 0 40] T [60 0 52 9 30 0 0 0 60 20]	

ID: MY0021 NAME: REB1 SOURCE: Church Lab: REB1.mot LINK: http://atlas.med.harvard.edu/motifs/REB1.mot	A [0 14 0 0 22 0 0 0 0 0] C [7 3 0 0 0 22 22 22 0 11] G [0 5 0 0 0 0 0 0 22 11] T [15 0 22 22 0 0 0 0 0 0]	
ID: MY0022 NAME: RPN4 SOURCE: Church Lab: RPN4.mot LINK: http://atlas.med.harvard.edu/motifs/RPN4.mot	A [4 0 0 0 0 0 0 15 0 0] C [0 0 0 0 0 15 14 0 15 12] G [0 0 0 0 15 0 0 0 0 0] T [11 15 15 15 0 0 1 0 0 3]	
ID: MY0023 NAME: RRPE SOURCE: Church Lab: RRPE.mot LINK: http://atlas.med.harvard.edu/motifs/RRPE.mot	A [7 0 26 26 26 24 19 6 0 0] C [0 0 0 0 0 0 0 0 0 0] G [0 26 0 0 0 0 0 0 0 0] T [19 0 0 0 0 2 7 20 26 26]	
ID: MY0024 NAME: STE12 SOURCE: Church Lab: STE12.mot LINK: http://atlas.med.harvard.edu/motifs/STE12.mot	A [6 0 0 3 0 0 7 6 7 1 1] C [0 0 0 0 0 0 0 1 0 4 0] G [1 0 0 1 0 7 0 0 0 1 6] T [0 7 7 3 7 0 0 0 0 1 0]	
ID: MY0025 NAME: STRE SOURCE: Church Lab: STRE.mot LINK: http://atlas.med.harvard.edu/motifs/STRE.mot	A [0 0 0 0 5 0 0 0 1 0 3 2] C [10 8 12 12 2 11 12 12 11 6 1 9] G [0 0 0 0 2 0 0 0 0 0 3 1] T [2 4 0 0 3 1 0 0 0 6 5 0]	

ID: MY0026 NAME: RLM1 SOURCE: PUBMED 9121433 LINK: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=PubMed&term=9121433&doptcmdl=Abstract	A [10 14 11 0 0 0 42 16 22 23 32 0 42 0 27 4 7 10] C [10 2 0 0 42 0 0 0 0 0 0 0 0 0 14 15 16 13] G [10 16 1 5 0 0 0 0 0 0 0 0 0 42 0 2 3 10] T [8 10 30 37 0 42 0 26 20 19 10 42 0 0 1 20 16 7]	
ID: MY0027 NAME: SMP1 SOURCE: PUBMED 9121433 LINK: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=PubMed&term=9121433&doptcmdl=Abstract	A [8 8 11 0 0 8 0 0 30 6 13 14 21 0 30 2 8 27 9 6] C [3 5 0 21 0 0 29 0 0 0 0 0 0 0 0 0 14 0 4 9] G [5 4 19 0 0 11 0 0 0 0 0 0 0 0 0 28 0 0 7 4] T [4 12 0 9 30 11 1 30 0 24 16 16 9 30 0 0 7 1 9 7]	
ID: MY0028 NAME: XBP1 SOURCE: PUBMED 10611226 LINK: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=PubMed&term=10611226&doptcmdl=Abstract	A [2 23 10 3 20 6 9 4 8 6 20 9] C [0 0 0 10 2 12 2 13 6 3 3 4] G [22 1 9 11 2 6 8 2 4 13 1 7] T [0 0 5 0 0 0 5 5 6 2 0 4]	
ID: MY0029 NAME: ADR1P SOURCE: PUBMED 8196627 LINK: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=PubMed&term=8196627&doptcmdl=Abstract	A [2 3 0 4 0 0 2 0] C [5 0 0 4 0 0 0 0] G [4 9 9 1 11 12 10 12] T [1 0 3 3 1 0 0 0]	

ID: MY0030 NAME: MIG1b SOURCE: PUBMED 8114729 LINK: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=PubMed&term=8114729&doptcmdl=Abstract	A [2 6 0 0 0 0 8 0 8 2 5 5 7 5 3 6] C [3 2 14 14 14 14 0 7 1 2 0 0 0 2 1 6] G [2 1 0 0 0 0 6 7 3 0 0 0 0 0 2 1] T [7 5 0 0 0 0 0 0 2 10 9 9 7 7 8 1]	
ID: MY0031 NAME: MCM1 SOURCE: PUBMED 1630900 LINK: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=PubMed&term=1630900&doptcmdl=Abstract	A [6 2 11 9 10 8 10 9 3 3 0 14 7 11 20 11 3 7 1 5 6 8 11 4] C [11 20 14 7 5 1 2 1 0 2 9 11 9 2 1 4 8 7 8 1 5 5 1 10] G [6 1 0 9 1 1 3 9 14 20 8 0 3 0 2 5 4 12 14 12 6 7 8 1] T [5 5 3 3 12 18 13 9 11 3 11 3 9 15 5 8 13 2 5 10 11 8 8 13]	
ID: MY0032 NAME: SCB SOURCE: SCPD SCB LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?SCB	A [0 6 0 0 10 10 10] C [10 0 10 0 0 0 0] G [0 2 0 10 0 0 0] T [0 2 0 0 0 0 0]	
ID: MY0033 NAME: PHO2 SOURCE: SCPD PHO2 LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?PHO2	A [0 0 6 6 5 0 0] C [2 0 0 0 0 0 0] G [1 0 0 0 0 0 3] T [3 6 0 0 1 6 3]	
ID: MY0034 NAME: ROX1 SOURCE: SCPD ROX1 LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?ROX1	A [0 0 2 7 0 0 0 0 0 0 1 0] C [4 6 4 1 0 0 0 0 0 5 0 5] G [0 0 0 0 0 1 8 0 0 1 1 2] T [4 2 2 0 8 7 0 8 8 2 6 1]	

ID: MY0035 NAME: SWI5 SOURCE: SCPD SWI5 LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?SWI5	A [4 0 4 1 1 4 0 0 0 0 0 2] C [1 2 1 1 3 2 0 0 7 0 0 0] G [2 2 0 2 1 0 2 7 0 0 7 5] T [0 3 2 3 2 1 5 0 0 7 0 0]	
ID: MY0036 NAME: TBP SOURCE: SCPD TBP LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?TBP	A [0 14 0 13 9 14 7] C [0 0 0 0 1 0 0] G [0 0 0 0 0 0 1] T [14 0 14 1 4 0 6]	
ID: MY0037 NAME: UASPHR SOURCE: SCPD UASPHR LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?UASPHR	A [3 1 0 4 2 0 1 0 0 2 0 0] C [2 1 2 2 7 3 1 12 12 0 12 3] G [0 2 0 2 1 1 3 0 0 0 0 6] T [8 9 11 5 3 9 8 1 1 11 1 4]	
ID: MY0038 NAME: GCR1 SOURCE: SCPD GCR1 LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?GCR1	A [0 2 0 0 0] C [6 0 0 6 6] G [0 0 0 0 0] T [0 4 6 0 0]	
ID: MY0039 NAME: CAR1_r SOURCE: SCPD CAR1_r LINK: http://cgsigma.cshl.org/cgi-bin/jz/getfactor?CAR1_r	A [12 2 0 0 2 0 0 5 8] C [0 0 13 13 0 12 11 2 2] G [0 11 0 0 10 1 2 5 2] T [1 0 0 0 1 0 0 1 1]	

ID: MY0040 NAME: FKH1 SOURCE: YRSA LINK: http://yrsa.cgb.ki.se/matrixlist.html	A [6 0 19 19 19 0 19 12 12] C [1 4 0 0 0 17 0 2 0] G [12 0 0 0 0 1 0 0 0] T [0 15 0 0 0 1 0 5 7]	
ID: MY0041 NAME: MIG1c SOURCE: Modified version of MY0030/MIG1b. MOTIF CONSTRUCTION: Truncated motif to remove low information content positions.	A [7 9 9 10 2 0 0 0 0 0 0 5] C [0 0 0 0 3 7 6 0 0 0 0 1] G [0 0 0 2 1 7 0 14 14 14 14 2] T [7 5 5 2 8 0 8 0 0 0 0 6]	
ID: MY0042 NAME: UME6 SOURCE: PUBMED 11095743 MOTIF CONSTRUCTION: YRSA LINK: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11095743	A [5 0 3 0 2 3 0 0 25 46 37] C [16 29 4 5 39 0 1 53 0 0 3] G [21 19 46 48 1 50 52 0 0 2 0] T [11 5 0 0 11 0 0 0 28 5 13]	
ID: MY0043 NAME: GATA SOURCE: PUBMED 8655543, 1048815, 1860815, 8636059, 12489124, 11096087, 7568152 MOTIF CONSTRUCTION: YRSA	A [7 0 0 19 0 0 12] C [12 0 0 0 0 19 0] G [0 0 0 0 0 0 7] T [0 19 19 0 19 0 0]	
ID: MY0044 NAME: PDS SOURCE: PUBMED 15282798, 10523651, 7501452 MOTIF CONSTRUCTION: Manual	A [1 2 1 1 3 5 0 0 0 4 1 1 3] C [2 2 0 0 0 0 0 0 0 0 1 1 0] G [1 1 1 0 0 0 5 5 5 1 0 2 1] T [1 0 3 4 2 0 0 0 0 0 3 1 1]