# SUPPLEMENTARY TABLE

## Table S2. Transcription factor binding sites (TFBS) included in each cluster.

## The numbers of transcription factor binding sites (TFBS) are given in this table, and are organized according to ascending alphabetical order. The number in brackets represents the number of transcription factor binding sites (TFBS), and these TFBS are specific to each cluster gene as given in the Suppl. Table S1. For more detail of gene titles and expression values of the respective cluster genes, see Suppl. Table S1.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Transcrption Factors Binding Sites (TFBS) in each cluster** | | | | | | | | |
| **Cluster 1** | **Cluster 2** | | | **Cluster 3** | | | **Cluster 4** |  |
| *AHRARNT (149)* | *AHR (65)* | *GATA (107)* | *NKX25 (121)* | *AML1 (215)* | *GATA (147)* | *NGFIC (83)* | *AML1 (167)* | *IRF2 (106)* |
| *AP1 (174)* | *AML1 (158)* | *GATA1 (160)* | *NKX61 (93)* | *AP1 (187)* | *GATA1 (226)* | *NKX22 (167)* | *AP1 (132)* | *IRF7 (121)* |
| *AP2REP (128)* | *AP1 (135)* | *GATA3 (51)* | *NMYC (67)* | *AP1FJ (95)* | *GATA2 (98)* | *NKX25 (191)* | *AP1FJ (63)* | *ISRE (108)* |
| *ARNT (136)* | *AP1FJ (65)* | *GATA6 (38)* | *NRSF (102)* | *AP2REP (119)* | *GATA3 (82)* | *NKX3A (174)* | *AREB6 (173)* | *LHX3 (117)* |
| *ARP1 (139)* | *AP2REP (99)* | *GCNF (119)* | *OCT (99)* | *AP4 (169)* | *GATA6 (73)* | *NKX61 (152)* | *BACH1 (106)* | *MEF2 (190)* |
| *BACH1 (144)* | *AP4 (127)* | *GFI1 (99)* | *OCT1 (171)* | *AREB6 (226)* | *GCNF (162)* | *OCT (158)* | *BRACH (125)* | *MEIS1 (95)* |
| *BACH2 (134)* | *ARNT (90)* | *GR (105)* | *P300 (78)* | *ARNT (132)* | *GFI1 (146)* | *OCT1 (235)* | *BRN2 (133)* | *MRF2 (129)* |
| *CEBPA (84)* | *ATF6 (104)* | *GRE (99)* | *P53 (132)* | *ATF (83)* | *GR (157)* | *P300 (107)* | *CART1 (154)* | *MSX1 (108)* |
| *CEBPB (177)* | *BACH1 (113)* | *HFH1 (102)* | *PAX2 (114)* | *ATF6 (119)* | *GRE (143)* | *P53 (183)* | *CDC5 (152)* | *MYB (89)* |
| *COUP (118)* | *BACH2 (104)* | *HFH3 (103)* | *PAX3 (88)* | *BACH1 (174)* | *HFH1 (161)* | *PAX2 (158)* | *CDP (173)* | *NCX (96)* |
| *E47 (171)* | *BRACH (114)* | *HLF (85)* | *PAX4 (150)* | *BACH2 (146)* | *HFH3 (143)* | *PAX3 (131)* | *CDPCR1 (96)* | *NFAT (125)* |
| *EGR3 (52)* | *BRN2 (99)* | *HMX1 (92)* | *PAX5 (108)* | *BRACH (161)* | *HLF (146)* | *PAX4 (206)* | *CEBP (169)* | *NFE2 (77)* |
| *FREAC2 (94)* | *CART1 (90)* | *HNF1 (113)* | *PBX1 (118)* | *BRN2 (157)* | *HMX1 (126)* | *PAX6 (171)* | *CEBPA (80)* | *NFY (101)* |
| *GCNF (162)* | *CDC5 (91)* | *HNF3B (86)* | *POU3F2 (117)* | *CART1 (158)* | *HNF1 (175)* | *PBX1 (184)* | *CEBPB (133)* | *NKX22 (142)* |
| *HAND1E47 (134)* | *CDP (127)* | *HOX13 (91)* | *POU6F1 (81)* | *CDC5 (167)* | *HNF3B (151)* | *POU3F2 (204)* | *CHOP (98)* | *NKX25 (165)* |
| *HNF4 (146)* | *CEBP (152)* | *HOXA3 (88)* | *PPARA (108)* | *CDP (202)* | *HNF4 (133)* | *POU6F1 (154)* | *CHX10 (112)* | *NKX3A (156)* |
| *IK3 (125)* | *CEBPA (67)* | *HSF1 (71)* | *PPARG (155)* | *CDPCR1 (135)* | *HOX13 (121)* | *PPARA (141)* | *CREBP1 (130)* | *NKX61 (137)* |
| *MYB (131)* | *CHOP (102)* | *HSF2 (89)* | *RFX1 (118)* | *CDPCR3 (157)* | *HOXA3 (130)* | *PPARG (216)* | *E2F (118)* | *OCT (139)* |
| *MYCMAX (184)* | *CHX10 (89)* | *IK3 (89)* | *RORA1 (85)* | *CEBP (216)* | *HSF1 (100)* | *RFX1 (179)* | *E4BP4 (141)* | *OCT1 (200)* |
| *NFE2 (105)* | *CMYB (90)* | *IRF1 (60)* | *RORA2 (94)* | *CEBPA (105)* | *HSF2 (138)* | *RORA1 (145)* | *EN1 (132)* | *PAX4 (170)* |
| *NFKAPPAB (102)* | *COMP1 (94)* | *IRF7 (104)* | *RP58 (115)* | *CEBPB (186)* | *HTF (148)* | *RORA2 (153)* | *EVI1 (197)* | *PAX6 (133)* |
| *NFKB (144)* | *COUP (87)* | *ISRE (100)* | *RSRFC4 (105)* | *CETS1P54 (71)* | *IK1 (102)* | *RP58 (175)* | *FAC1 (112)* | *PBX1 (154)* |
| *NFY (142)* | *CP2 (78)* | *LHX3 (82)* | *S8 (103)* | *CHOP (153)* | *IK2 (86)* | *RREB1 (99)* | *FOXD3 (120)* | *POU3F2 (176)* |
| *NMYC (91)* | *CREB (84)* | *LYF1 (78)* | *SEF1 (106)* | *CHX10 (146)* | *IK3 (143)* | *RSRFC4 (166)* | *FOXJ2 (177)* | *POU6F1 (145)* |
| *NRSF (157)* | *E2F (113)* | *MAX (37)* | *SOX5 (105)* | *CMYB (124)* | *IRF1 (114)* | *S8 (156)* | *FOXO1 (123)* | *RFX1 (119)* |
| *PPARA (160)* | *E47 (124)* | *MEF2 (145)* | *SOX9 (100)* | *COMP1 (137)* | *IRF2 (149)* | *SEF1 (136)* | *FOXO3 (89)* | *RORA1 (106)* |
| *PPARG (234)* | *E4BP4 (90)* | *MEIS1 (95)* | *SREBP1 (114)* | *COUP (130)* | *IRF7 (149)* | *SOX5 (163)* | *FOXO4 (148)* | *RORA2 (124)* |
| *ROAZ (137)* | *EGR2 (21)* | *MIF1 (80)* | *SRF (133)* | *CP2 (106)* | *ISRE (161)* | *SOX9 (148)* | *FREAC2 (102)* | *RP58 (115)* |
| *RSRFC4 (137)* | *ELK1 (97)* | *MRF2 (97)* | *SRY (92)* | *CREBP1 (143)* | *LHX3 (135)* | *SPZ1 (92)* | *FREAC3 (115)* | *RSRFC4 (129)* |
| *SEF1 (149)* | *EN1 (116)* | *MSX1 (90)* | *STAT (81)* | *CREL (49)* | *LUN1 (139)* | *SREBP1 (169)* | *FREAC4 (129)* | *S8 (121)* |
| *TCF11 (150)* | *EVI1 (160)* | *MYOD (111)* | *STAT1 (88)* | *E2F (162)* | *LYF1 (121)* | *SRF (202)* | *FREAC7 (146)* | *SEF1 (100)* |
| *USF (174)* | *FAC1 (96)* | *MZF1 (95)* | *STAT3 (110)* | *E47 (168)* | *MAX (49)* | *SRY (150)* | *GATA (123)* | *SOX5 (151)* |
|  | *FOXD3 (76)* | *NCX (96)* | *STAT5A (117)* | *E4BP4 (156)* | *MEF2 (216)* | *STAT (115)* | *GATA1 (178)* | *SOX9 (116)* |
|  | *FOXJ2 (141)* | *NF1 (76)* | *STAT5B (72)* | *EN1 (159)* | *MEIS1 (132)* | *STAT1 (133)* | *GATA6 (50)* | *SRF (146)* |
|  | *FOXO1 (90)* | *NFAT (89)* | *TATA (112)* | *ER (138)* | *MIF1 (108)* | *STAT3 (140)* | *GCNF (120)* | *SRY (136)* |
|  | *FOXO3 (61)* | *NFE2 (78)* | *TBP (74)* | *EVI1 (240)* | *MRF2 (164)* | *STAT5A (175)* | *GFI1 (101)* | *STAT (78)* |
|  | *FOXO4 (111)* | *NFKB (115)* | *TCF11 (104)* | *FAC1 (154)* | *MSX1 (128)* | *STAT5B (121)* | *GRE (96)* | *STAT1 (80)* |
|  | *FREAC2 (81)* | *NFY (92)* | *TGIF (96)* | *FOXD3 (133)* | *MYB (124)* | *TATA (168)* | *HAND1E47 (98)* | *STAT3 (101)* |
|  | *FREAC3 (98)* | *NGFIC (64)* | *TST1 (86)* | *FOXJ2 (200)* | *MYOD (164)* | *TBP (133)* | *HFH1 (142)* | *STAT5A (116)* |
|  | *FREAC4 (101)* | *NKX22 (94)* | *USF (111)* | *FOXO1 (159)* | *MZF1 (143)* | *TCF11 (150)* | *HFH3 (133)* | *STAT5B (91)* |
|  | *FREAC7 (102)* |  | *ZIC3 (80)* | *FOXO3 (109)* | *NCX (134)* | *TGIF (135)* | *HLF (127)* | *TATA (152)* |
|  |  |  |  | *FOXO4 (185)* | *NF1 (111)* | *TST1 (149)* | *HNF1 (152)* | *TBP (105)* |
|  |  |  |  | *FREAC2 (124)* | *NFAT (152)* | *USF (157)* | *HNF3B (124)* | *TCF11 (107)* |
|  |  |  |  | *FREAC3 (153)* | *NFE2 (112)* | *XBP1 (130)* | *HOXA3 (95)* | *TGIF (92)* |
|  |  |  |  | *FREAC4 (168)* | *NFKB (151)* | *YY1 (192)* | *HSF1 (73)* | *TST1 (111)* |
|  |  |  |  | *FREAC7 (162)* | *NFY (131)* | *ZIC2 (64)* | *HSF2 (94)* | *YY1 (140)* |
|  |  |  |  |  |  | *ZIC3 (107)* | *IK3 (97)* |  |