Scale
chr7: 155,801,000 155,802,000 155,803,000 155,804,000 155,805,000 155,806,000 155,807,000 155,808,000 155,809,000 155,810,000 155,811,000 155,812,000
5 kb hg38

GENCODE V47 (4 items filtered out)
SHH
ENSG00000296779

OMIM Allelic Variant Phenotypes
OMIM Alleles

OMIM Gene Phenotypes - Dark Green Can Be Disease-causing
OMIM Genes

Gene Expression in 54 tissues from GTEx RNA-seq of 17382 samples, 948 donors (V8, Aug 2019)
SHH

H3K27Ac Mark (Often Found Near Regulatory Elements) on 7 cell lines from ENCODE
Layered H3K27Ac

JASPAR CORE 2024 - Predicted Transcription Factor Binding Sites (57015 items filtered out)

PROX1 Gfi1B Gli2 SP3 Irf1 RFX7 Zic3 Ikzf3 Zfx Wt1 SP1 GLIS1 SP1 Zfx ZIC5 EBF1 KLF3 GFI1 Ebf4 Jun ZIM3
ZNF274 Hic1 Zfx SP1 Yy1 KLF5 Nrf1 E2F6 SP1 Stat4 ZIM3 Wt1 SP2 Erg Zfx Ebf4 EBF1 Ptf1A Nfat5 Jun Stat2
Nr2e1 Znf423 Esrrg Vdr Irf1 SP3 E2F4 SP1 SP2 GCM2 IRF7 Zfx SP4 Vdr Zic2 KLF5 Zic2 SP8 GLI3 NRL SP9
ELF2 RELA Zic2 Sox6 TBP Wt1 BCL6 SP2 SP4 GCM1 Stat2 Stat4 Wt1 ZIC1 Zic3 SP3 Nrf1 Wt1 Spi1 MAFF Ascl2
HOXB2::ELK1 SPDEF MAF Irf1 YY2 SP1 NR1I2 Lhx1 SP1 Wt1 Irf1 Stat6 SP8 SP8 E2F6 SP1 Spz1 Nrf1 SPIB GCM2 Ascl2
ELK4 CEBPA MAF TBP Rfx6 Wt1 MAZ Alx1 SP1 Nrf1 TBX20 SP9 SP8 ZIC1 EBF1 Ebf4 Ptf1A SP1 EN2 KLF17
ELF1 ATF4 Rxra Dmrt1 MITF Nrf1 SP1 Alx1 SP9 Ptf1A GLIS2 SP1 SP9 ZIC4 Ebf4 Nrf1 ZFP14 Wt1 GCM1 Ptf1A
EHF CEBPG RXRB LIN54 MITF Nrf1 SP4 Sox1 SP4 EBF3 GLIS3 SP2 SP3 SP1 PAX8 Nrf1 KLF16 SP8 KLF9 Ptf1A
ELF3 JUN RXRG Lhx3 Lhx3 Zic2 SP8 Spi1 Ebf2 KLF5 XBP1 Zfx SP2 SP2 Spi1 Nrf1 NR1D2 SP9 Nrf1 Lhx3
ZBTB7A Plagl1 Nr2f6 Arx Lhx3 EGR2 SP9 SPIB SP4 ZIC5 KLF16 Runx1 SP3 SP4 RORA KLF2 CDX1 SP3 EGR2 Lhx3
Ikzf3 ZNF770 TCF7 Arid3b Sox6 Zfx SP3 IRF7 SP1 ZIC4 PATZ1 Plagl1 SPIB Zfx RARG SP1 CDX2 SP1 EGR1
ZBTB11 TFAP2C Lef1 SOX4 Sox7 E2F4 E2F6 SP1 KLF7 Stat6 SP2 Erg SP8 ZIC1 SP1 ZIC5 CDX4 SP4 IRF2
GABPA TFAP2B KLF3 Sox17 SRY NHLH2 KLF5 SP4 MTF1 THRB KLF5 REL SP9 KLF15 Wt1 ZIC1 Spi1 REL IRF7
Erg TFAP2C PAX8 Sox6 LIN54 NHLH1 EGR3 SP9 EGR2 THRB SP3 Erg SP3 EGR2 Elf5 Zic3 Stat4 SP9 IRF3
ZNF213 TFAP2B KLF1 Sox7 RORC TCF3 SP1 SP3 EGR1 Elf5 KLF9 Elf5 SP1 EGR3 Wt1 Zfx KLF5 Rarg Spi1
ETV1 TFAP2A KLF2 Sox11 RORA TCF4 KLF2 SP2 TCFL5 Ebf2 KLF4 EHF Wt1 EGR4 SP1 ZIC1 KLF16 Rxra Stat2
ZNF175 TFAP2A KLF7 Arid5a KLF16 SPIC Nrf1 SP4 PATZ1 EBF3 KLF1 SP4 JUN EGR1 SP2 GLIS2 KLF4 Erg Spi1
ZNF460 TFAP2B YY2 SATB1 PATZ1 Spi1 ZIC1 Zic3 Znf423 ZFP42 Spz1 Spi1 SP1 Wt1 ZIC1 ZIC4 KLF1 ELF1 SPIB
ZNF135 TFAP2B USF1 Hoxa13 KLF4 SPIB EGR2 KLF15 Zfp961 KLF4 ZFP42 KLF9 KLF11 ZIC4 ZIC5 MAZ EHF Nrf1
FEZF2 TFAP2E MITF Stat5a KLF1 Elf5 EGR4 KLF16 Zfp961 KLF1 PRDM9 KLF5 SP9 ZIC5 Zic2 SP1 ELF3 SP1
ZNF770 TFAP2E MITF TCF7L1 KLF15 ELF1 EGR1 KLF15 E2F6 MAZ PRDM9 Hmx2 KLF16 PITX2 KLF5 SP2 Ikzf3 KLF5
ZNF574 Zfp335 TFE3 TCF7L2 KLF2 EHF Nrf1 KLF2 SP4 PLAG1 ZFP14 KLF4 SP3 OTX2 SP3 SP4 Spi1 KLF4
ELF4 KLF3 TFE3 MEF2B KLF7 ELF3 MAZ KLF12 KLF5 ZFP14 PATZ1 KLF1 PATZ1 SP8 KLF9 SP9 SPIB KLF1
ELF2 ZNF416 TFEB MEF2D SP1 HINFP SP8 KLF10 PATZ1 MAZ KLF5 KLF2 SP1 DPRX KLF1 SP8 Erg KLF2
ZBTB7A ZNF549 TFEC Hmga1 SP2 Ebf2 SP9 KLF11 KLF4 Prdm4 KLF4 KLF7 SP2 PATZ1 KLF2 NFIL3 SP9 KLF7
Nrf1 NFIB ZIM3 MEF2A SP4 EBF3 SP3 EGR1 KLF1 ZBTB6 KLF1 RFX5 SP4 MAZ KLF7 HLF SP2 NFIX
TCFL5 SMAD3 PBX3 MYF6 KLF14 TCF4 SP1 EGR3 KLF2 ZNF708 MAZ THRB KLF6 Ebf2 SP2 IRF8 SP8 NFIC
Nrf1 SMAD3 Gfi1B Stat2 KLF12 KLF3 SP2 KLF4 KLF7 EPAS1 SP9 THRA KLF5 EBF3 SP4 IRF7 SP9 NFIX
ZNF324 SMAD5 Stat4 Mecom KLF10 ZNF530 Lhx1 KLF1 RREB1 Tfcp2l1 SP3 JUND KLF4 Nfat5 SP9 IRF2 Wt1 Hmx2
TFAP2A SMAD5 Mecom IRF3 KLF6 ZNF257 GFI1 SP4 EGR3 PRDM1 SP1 JUNB KLF1 IRF7 SP8 JUND ELF1 NFYA
KLF15 Zic2 SP4 Stat2 SP9 THAP1 Sox1 EBF3 EGR1 Prdm5 SP2 ATF3 KLF2 IRF3 Wt1 JUN EHF NFYC
ZNF460 ZNF189 ZNF768 KLF9 SP8 ZNF148 Irf1 EGR1 Wt1 FERD3L SP4 ATF3 KLF7 FOXD2 MAZ ATF4 Ikzf3 NFYB
ZNF257 ZNF708 RORA Stat4 KLF5 ZNF148 Yy1 KLF16 KLF5 FOXD3 SP2 CREM EGR2 IRF4 SP2 HLF Stat4 FOXE1
SP2 ZBTB14 INSM1 Stat5a SP3 ZNF263 KLF5 KLF15 SP3 Hmx2 Wt1 CREM EGR3 IRF8 Wt1 KLF5 GLIS2 ZNF384
ZNF574 OSR2 ZNF416 Stat5b KLF9 ZNF281 KLF4 SP2 KLF4 RORA SP8 JDP2 EGR4 IRF5 ZIC5 SP1 REL GATA4
MAZ IRF2 Rfx6 Stat4 KLF4 ZNF530 SP2 KLF12 KLF1 RORB SP9 ATF7 EGR1 IRF9 ZIC1 SP2 KLF5 PRDM9
ZNF317 IRF4 MZF1 IRF3 KLF1 KLF15 KLF1 KLF10 MAZ RORC SP1 ATF7 Wt1 IRF3 ZIC4 Tbx6 SP3 PRDM9
E2F7 IRF8 ZBTB24 IRF2 KLF2 ZBED4 SP4 SP9 SP1 ZBTB24 Ikzf3 ATF2 KLF5 Rarg TCFL5 MAZ SP2 ZBTB14
RORC IRF7 ZNF684 DUXA SP1 ZNF281 Wt1 ZNF93 SP2 ZFP14 Gata3 Nrf1 KLF4 MEIS3 Prdm5 KLF7 SP4 KLF11
TBX19 IRF5 ZBTB18 DUXA SP2 ZNF148 KLF5 SP1 SP4 Zfp809 ZIM3 Nrf1 KLF1 MEIS2 TCFL5 EBF1 Atf3 SP1
TBXT MEIS3 RREB1 IRF2 SP4 KLF16 KLF4 EGR1 SP9 KLF15 Ikzf3 SP1 SP1 Esrrg Prdm5 SP4 RORB SP2
TBXT Stat2 ZNF684 Stat2 SP9 PATZ1 KLF1 Wt1 SP8 KLF12 ELF4 SP2 SP2 NR2F1 ZFP14 KLF5 Mafb SP4
TBX19 ZIM3 KLF16 DUXA SP8 SP1 MAZ EGR2 Wt1 KLF10 ETV1 Ebf2 SP4 Rarb MYOD1 KLF4 ZFP42 Stat6
MYCN Spi1 PATZ1 DUXA Wt1 SP2 SP2 EGR3 PAX5 ZBED4 Stat5a Ebf4 Wt1 NR2F2 Neurod2 KLF1 ZNF93 MYF5
MYCN SPIB KLF14 DUX4 Wt1 SP4 SP4 EGR4 E2F6 KLF16 Foxj2 Ebf4 NFIX Rarg Bhlha15 KLF2 ZBTB14 Ascl2
MYC ELF1 KLF10 PROP1 TCF4 KLF14 SP8 ZIM3 Tbx6 PATZ1 FOXI1 Ebf2 NFIX KLF2 MYF5 KLF7 ZBED4 Ptf1A
MYC EHF KLF5 FOXC1 SP4 KLF12 EGR4 TBX20 ZIC1 KLF15 Foxo3 ESR1 Arid5a MZF1 NKX2-2 KLF5 SPIB
Npas2 ELF3 KLF4 Hmga1 EGR1 KLF10 SP1 TBX2 ZIC4 KLF2 Foxo1 ESR1 Arid5a EGR2 Hoxa13 KLF6 ZNF93
Npas2 ETV6 KLF1 MEF2A EGR2 KLF6 SP9 TBR1 ZIC5 KLF7 Foxf1 ESR2 Prdm14 EGR3 HOXD9 IRF7 ZNF93
ZNF524 ETV7 KLF2 MEF2C EGR3 KLF5 Wt1 TBX18 Zic2 SP1 Foxl2 ESR2 ZNF768 EGR4 Hoxd13 SOX2 KLF14
RARA::RXRA Ikzf3 KLF7 GLIS3 EGR4 KLF4 SP8 TBX3 NFIX SP2 Zic3 ATF6 PRDM9 SP9 NR2F1 Sox3 KLF10
MEIS2 ZBTB11 SREBF1 GCM2 E2F6 KLF1 KLF5 Tbx6 NFIX SP4 ZNF93 XBP1 RXRB GLIS2 RORA JDP2 TEAD1
MEIS3 GABPA SREBF2 ZNF701 E2F6 KLF15 KLF4 TBX21 ETV1 KLF14 ZNF93 Plagl1 RXRG ZIC4 RORB NFE2 ZNF93
ZNF768 Erg ZNF320 PRDM9 EGR1 KLF2 KLF1 TBX15 Ikzf3 KLF12 Prdm5 NR2C2 NR2F1 CUX2 RORC GFI1 GATA5
HES7 Elf5 PRDM9 PRDM9 ETV7 KLF7 KLF2 TBX1 Runx1 KLF10 SPIB KLF14 NR2F6 ELF4 RORA Spz1 PBX1
HES7 Foxl2 ZNF281 ZNF324 Ptf1A TBX5 KLF7 TBX4 Plagl1 KLF6 Hic1 KLF12 NR2F6 Nkx3-1 PAX6 KLF3 Hmx1
Arntl FOXA2 ZNF148 E2F8 Ptf1A SP1 SP1 TBX5 FEZF2 KLF11 GLIS3 KLF10 RARB ZBED4 PATZ1 KLF5 Hmx3
MLXIPL FOXS1 PATZ1 E2F6 MYF5 SP2 Zfx NR1D2 Zfp961 SP9 Prdm4 KLF7 PAX5 EGR1 NR2F6 SOX9 OVOL1
TFEB FOXP2 ZNF75D Gfi1B MYF5 Wt1 LIN54 NR1D1 GLIS2 SP8 NR6A1 EGR1 TCF4 ZNF549 PATZ1 TCF3 ZNF384
TFEC FOXD1 CDX2 IRF5 THAP1 EBF1 YY2 TEAD4 Plagl1 Wt1 NR5A1 EGR3 RREB1 ZBTB24 KLF14 TCF4 ZNF384
HES1 FOXL1 Hoxa13 FOXD3 ESR2 Ebf4 Prdm4 INSM1 Thap11 ZIC1 Nr5A2 KLF5 E2F6 THAP1 NFIL3 KLF1 KLF14
ARNT2 FOXI1 HOXB13 GRHL2 NR1I2 Ebf2 ZBTB6 Stat5b Tfcp2l1 Nrf1 ESRRA KLF16 TFDP1 OSR2 PATZ1 KLF2 KLF15
HES2 Foxo3 Hoxd13 RFX4 PAX5 CTCF EBF1 ZNF416 Zfp809 MAZ KLF9 SP3 ZNF93 ZNF768 KLF14 KLF7 E2F6
HEY2 Foxo1 FOXD3 RFX4 ZIC5 IRF2 Ebf4 ZNF682 FEZF2 PRDM9 Creb5 PATZ1 Ppara Bhlha15 E2F6 ZNF530
USF1 FOXP1 Gfi1B ZNF135 ZIC1 KLF5 KLF14 ZNF574 ZNF148 KLF16 JUND MAZ Nr2F6 MYF5 Runx1 ZBED4
USF1 FOXO4 RUNX3 Plagl1 ZIC4 SP3 KLF12 ZNF454 ZNF454 PATZ1 JUNB KLF14 RARA ZNF701 Gfi1B ZNF768
USF2 FOXO6 ZNF766 ZNF770 PAX5 KLF9 KLF10 PATZ1 ZNF610 KLF14 DUX4 KLF12 NR1I3 ZNF530 GLIS1 ZNF530
USF2 FOXP3 Prdm5 ZBTB32 PAX2 KLF4 KLF5 ZBTB18 ZNF148 KLF12 Pax7 KLF10 PATZ1 ZNF184 KLF16 PRDM1
MITF FOXK1 GRHL2 USF1 PAX1 KLF1 KLF7 TWIST1 THAP1 KLF10 PBX2 ZFP14 KLF15 PRDM1 KLF14 ZNF684
MITF FOXK2 ZKSCAN1 TFEB PAX9 KLF2 ZFP14 NR2F1 ZNF416 KLF5 MEIS1 Plagl1 KLF15 ZNF770 KLF12 ZNF610
BHLHE41 Foxf1 MEF2C Pax7 PAX8 KLF7 KLF11 NR2F6 ZNF460 KLF4 MEIS2 NKX2-2 HINFP FEZF2 KLF4 ZNF213
BHLHE41 FOXA3 POU1F1 PAX3 PLAG1 SP1 KLF14 NR2F6 PRDM9 KLF1 PBX1 ZNF675 INSM1 Zfp809 KLF1 ZNF768
MLX FOXP4 Sox11 PAX3 TFAP2A SP9 KLF12 ZBTB7C ZBTB7B MAZ HNF1B NR1D1 CTCFL ZNF610 MAZ ZNF684
MLX FOXA1 SOX4 PBX2 TFAP2B SP8 KLF10 PRDM9 ZNF416 MAZ GCM2 INSM1 INSM1 POU4F1 RREB1 Nanog
HES5 FOXG1 ZNF418 Stat5a TFAP2B SP8 KLF6 ZBTB14 ZBTB24 SP2 EGR4 CTCFL KLF16 POU4F3 RREB1 Prdm15
HES5 FEZF2 ZFP42 ZNF24 MYOD1 KLF3 SP2 ZBTB7C ZNF341 SP4 ZNF816 KLF15 THAP1 POU4F2 RREB1 ZNF384
HEY1 ZBTB12 ZNF549 SOX12 ASCL1 PATZ1 PATZ1 ZNF740 ZNF574 MAZ KLF5 ZBED4 ZBED4 POU3F1 KLF4 ZNF384
HEY1 GRHL2 SCRT2 FOXD3 SNAI1 KLF12 KLF15 ZNF257 ZNF281 Nr2e1 KLF4 PRDM9 ZNF454 TBX21 KLF6 TFDP1
TFE3 Mafb IKZF1 MEF2C TCF12 PATZ1 KLF2 Hand1 ZNF148 CTCF KLF1 KLF16 KLF16 PLAG1 MAFF Spz1
TFE3 MAFF ZNF136 HNF1A SNAI2 ZBED4 KLF7 ZBTB14 EGR1 KLF11 KLF15 PATZ1 KLF17 ZBTB6 ZBED4 MSC
HES6 NRL SATB1 FOXD3 ASCL1 KLF11 KLF12 ZNF610 ZNF740 ZNF281 KLF2 KLF4 KLF14 Msgn1 ZNF317 MYOG
ERF::SREBF2 Zic3 MEF2C FOXE1 SNAI3 KLF16 NFYB KLF16 EGR3 ZNF148 KLF7 KLF1 KLF12 Nfatc2 ZNF189
BHLHE40 Zic2 HOXB13 POU4F2 ZNF454 SP4 NFYA PATZ1 PRDM9 KLF16 SP1 KLF15 KLF10 ZNF136 ZNF669
BHLHE40 BCL11A BARX2 HOXC13 ZNF770 Wt1 ZBED4 KLF14 ZIC5 PATZ1 SP2 KLF2 KLF6 ZNF135 ZBTB33
TCFL5 Gli1 CEBPA ZNF549 ZBED4 STAT3 Prdm15 Tfcp2l1 Zic2 SP4 SP4 KLF7 KLF11 ZNF816 ZNF75A
SOHLH2 Gli2 MEF2C ZNF281 RREB1 Nr5A2 ZNF76 ZNF770 Zic3 KLF14 KLF14 SP2 ZNF281 RREB1 ZNF75D
SOHLH2 ZNF680 Rhox11 ZNF148 PRDM9 PRDM1 ZBTB14 ZBTB14 Stat4 KLF12 KLF12 SP4 EGR1 ZNF76 ZNF384
HES2 FEZF2 CEBPA RREB1 RREB1 ZBED4 ZNF76 PLAG1 KLF10 KLF10 KLF14 EGR2 PRDM9 ZNF384
HEY2 ZNF257 POU4F1 ZBED4 KLF17 ZBTB24 ZNF816 KLF17 KLF6 KLF6 KLF12 EGR3 PATZ1 ZNF384
Arntl ZBTB6 POU4F3 KLF16 PATZ1 CTCFL TFAP2C THAP1 KLF5 SP9 KLF10 EGR4 KLF10 ZNF384
MLXIPL ZBTB26 Pou5f1::Sox2 PATZ1 PRDM9 ZNF281 TFAP2B ZIC4 KLF4 KLF11 KLF6 PATZ1 RREB1 ZNF384
TFEB KLF9 POU3F1 ZNF530 KLF14 PATZ1 TFAP2B ZNF707 KLF1 SP8 KLF11 ZNF610 RREB1 ZNF384
TFEC KLF9 POU2F3 KLF15 ZNF281 PRDM9 TFAP2B PRDM9 KLF15 CTCF SP9 ZNF574 PRDM9 ZBTB7C
HES1 KLF11 POU5F1 KLF7 ZNF148 ZNF281 TFAP2C ZNF320 KLF2 ZBED4 NR2C2 ZNF530 PRDM9 PATZ1
ARNT2 THRB ZNF324 KLF14 RREB1 ZNF148 TFAP2C PLAGL2 KLF7 CTCF PRDM9 ZNF257 ZNF75A KLF5
HOXB13 Rarg FOXP2 KLF12 ZNF740 PRDM9 TFAP2A PLAGL2 ESR2 KLF7 PRDM9 ZNF682 RUNX2 ZNF263
Hmga1 THRA FOXE1 KLF10 NR1D2 ZNF263 TFAP2A PLAGL2 RORA Nrf1 PRDM9 KLF16 Bcl11B FERD3L
BCL11A NKX2-2 ZNF667 KLF6 TFAP2B ZNF281 ZNF148 PLAGL2 Nr2f6 EGR1 SPIB PATZ1 ZNF454 FERD3L
RELA NKX2-5 ZNF667 KLF11 TFAP2C ZNF701 ZNF263 ZNF184 NR2F1 EGR2 PRDM9 ZNF281 TFAP2B MSC
ZNF75D Nr5A2 ZNF384 EGR1 TFAP2A ZNF281 ZBTB24 PRDM1 THRB EGR3 PRDM9 ZNF148 ZNF24 MYF6
ZNF281 ESRRA MEF2C PRDM9 TFAP2A ZNF148 ZNF454 Prdm5 NR2C2 EGR4 KLF5 GLIS2 ZBTB32 MYF6
ZNF148 Esrrg ZNF677 CTCFL TFAP2C PATZ1 KLF12 SNAI3 Rxra ZBED4 PATZ1 KLF17 NKX2-3 Ascl2
ZNF610 TFAP2E FOXJ2::ELF1 PATZ1 TFAP2E KLF5 KLF10 TCF4 RXRB SP1 KLF4 TFAP2A NKX2-8 Tcf21
ZNF331 ZNF682 ZSCAN4 KLF4 TFAP2E KLF4 ZNF740 ASCL1 RXRG SP2 KLF1 TFAP2B NKX2-4 Tcf21
ZNF75A ZNF692 ZNF384 KLF1 EBF3 KLF1 ZNF281 TCF3 PPARD KLF14 KLF2 TFAP2B GABPA ELF4
CREB3L1 Tfcp2l1 ZNF384 MAZ TEAD2 KLF15 ZNF148 SNAI1 Wt1 KLF15 KLF7 TFAP2C ZNF740 ZNF816
PHOX2A INSM1 ZNF384 PATZ1 TEAD3 KLF2 INSM1 TCF12 ZNF331 HNF1A KLF10 TFAP2E ZNF281 INSM1
PROP1 ASCL1 ZNF384 KLF15 TEAD4 KLF7 ZNF75D ZNF770 ZNF708 HNF1B ZFP14 TFAP2E ZNF148 ZNF701
POU4F2 PATZ1 ZNF384 KLF2 TEAD1 E2F6 ZNF75A PRDM9 ZBTB24 Arid3b PRDM9 ZNF274 PATZ1 TEAD1
Lhx3 ZNF449 ZNF384 SP1 HOXC9 ZBED4 KLF5 Zic1::Zic2 ZNF740 Pax7 KLF14 MYOG NFKB1 ZNF784
HOXA10 ZNF189 ZNF384 KLF12 Hoxa11 ZNF148 KLF4 STAT1 ZNF460 NR3C1 GLIS2 MYOG NFKB1 ZNF708
POU4F1 ZBTB7C ZNF384 KLF10 HOXB9 ZNF680 KLF14 STAT3 ZNF740 NR3C1 Zfp335 ASCL1 MZF1 NHLH2
POU4F3 ZNF213 ZNF384 KLF5 HOXC12 POU2F3 KLF10 Stat5a KLF9 NR3C2 Zfp809 PLAG1 RELA NHLH2
HNF1A ZNF93 ZNF384 KLF16 HOXC11 POU5F1 ZNF281 Stat5b PATZ1 TFDP1 FOXD3 ZBTB7B NFKB2 ZSCAN31
mix-a NHLH1 ZNF384 SP3 ZNF136 TEAD3 GLIS2 Zfp809 KLF10 ZNF281 FOXC2 ZNF701 NFKB2 NHLH1
NKX6-1 Ascl2 ZNF384 PATZ1 ZNF416 TEAD4 ZBTB6 MEF2C KLF5 ZNF148 ESRRA ZNF148 NFKB1 MYOD1
LMX1A Ascl2 ZNF384 KLF4 ZNF331 TEAD1 ZBTB26 ZNF680 KLF4 KLF14 NR4A2 TFAP2B NFKB1 MYOG
LMX1B MYOG ZNF384 KLF1 NR2F1 ZNF680 CTCF FOXD3 KLF1 KLF12 NR4A1 ZNF530 RELA ASCL1
Alx1 MYOG ZNF384 MAZ NR2F6 ZNF680 OSR2 Foxj3 KLF2 KLF10 HNF4A ZNF768 Nfatc2 ASCL1
Alx1 ASCL1 ZNF384 SP1 PRDM9 ETV1 ZNF175 FOXF2 KLF7 KLF15 NR1D1 ZNF530 KLF11 Bhlha15
ARGFX ASCL1 ZNF384 SP2 RREB1 IKZF1 Runx1 TFAP2A ZBED4 ZNF343 TCF7L1 ZNF281 THAP1 Bhlha15
FOXE1 NHLH1 ZNF384 SP4 ZNF524 CTCFL ZBTB24 TFAP2C KLF12 ZNF682 ZNF281 ZNF148 NR2C2 MYF5
LIN54 ASCL1 Mecom KLF14 KLF16 ZNF667 Prdm5 Pparg::Rxra KLF10 ZNF184 PATZ1 HOXA10 KLF1 ASCL1
SRY ZNF547 ZNF677 KLF12 PATZ1 NKX2-8 ZNF770 ZNF148 Plagl1 ZNF257 ZBED4 HOXB13 KLF2 ZNF549
SOX9 ZNF708 ZNF677 KLF10 KLF14 NKX2-4 THAP1 ZKSCAN5 ZIC1 ZNF530 ZNF213 FOXC1 KLF6 ZBTB18
Sox5 ZNF213 RREB1 SP9 KLF10 ZBED4 ZNF669 ZNF257 ZIC4 ZNF282 PLAG1 FOXB1 Prdm5 TFAP4
SOX15 FEZF2 RREB1 YY2 ZNF740 PLAG1 ZNF707 ZBTB14 ZNF93 ZNF75D ZBTB7B FOXC2 Nr2F6 TFAP4
Sox11 ZNF418 STAT1 Zic2 KLF11 GLIS2 ZNF454 ZIC5 KLF13 ZNF189 ZNF281 ZNF528 Nr2f6 Neurod2
Gata3 Sox11 STAT1 BCL6 ZNF281 TEAD3 ZNF460 ZNF454 CREB3 ZNF341 ZNF281 ZNF766 NR2F1 NEUROD1
GATA5 Prdm5 STAT3 ASCL1 ZNF148 ZNF454 ZNF135 ZBTB7B Msgn1 ZNF530 PATZ1 ZNF35 THRB Bhlha15
GATA6 TGIF2 ZNF317 TCF4 ZBED4 ZBED4 ZNF770 ZBTB7C CEBPA ZNF281 NFKB2 Zfp809 RXRB Bhlha15
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NR6A1 NR2F1 DMRTA1 Ascl2 FOXD2 ZNF281 ZNF766 KLF11 CEBPB RREB1 TFAP2C ZKSCAN5 IKZF1 MYF5
Dmrt1 NR2F1 TFCP2 Plagl1 ZNF331 PATZ1 PLAGL2 KLF14 CEBPB ZNF740 TFAP2A ZNF281 SNAI1 MYF5
DMRT3 NR2F6 HMBOX1 ZNF93 ETV1 ZNF281 ZNF530 KLF15 CEBPE ZNF454 Zfp809 PRDM9 SNAI3 MYOD1
Six3 NR2F6 PROP1 ZFP14 PLAG1 ZNF701 PLAGL2 E2F6 CEBPE ZNF707 PRDM9 ZNF184 KLF9 Rhox11
MEIS3 ZNF574 PROP1 ZNF93 ZBTB6 ZNF610 ZNF669 TFDP1 CEBPG ZNF574 PATZ1 PRDM9 KLF5 PHOX2B
MEIS2 TCF7L1 PHOX2B PRDM9 ZNF135 ZNF610 ZNF331 PBX3 CEBPG Pparg::Rxra ZNF530 KLF12 KLF4 PHOX2A
IKZF1 ZNF549 ZNF354A ZNF93 ZBTB33 ZBED4 NKX2-2 GATA4 IKZF1 ZNF257 ZNF281 KLF10 KLF1 PROP1
POU2F3 NR2C2 PHOX2B PATZ1 Zfp961 Tfcp2l1 ZNF140 FOXP2 Hmx1 NR1D2 ZBTB14 ZNF740 KLF2 PROP1
BACH1 PPARD POU3F2 ZNF93 PRDM9 Tfcp2l1 TFAP4::FLI1 Ikzf3 ZNF740 NHLH2 EGR1 ZNF281 KLF7 PHOX2B
JUN::JUNB TCF7L2 POU3F3 PRDM9 ZNF324 ZNF281 ERF::FIGLA RELA PATZ1 ZBTB7A KLF15 ZNF148 INSM1
FOSL1::JUND Hnf1A POU3F1 PLAG1 ZNF530 DPRX ETV2::FIGLA Stat6 KLF4 ZBTB11 KLF12 ZNF740 TEAD2
ZNF770 Pparg::Rxra ZNF354A PATZ1 TFDP1 ZNF263 TFAP4::ETV1 ELF4 KLF1 ZNF682 EGR3 ZNF281 TEAD3
ZBTB7C HNF4A FOXD3 ZNF93 PATZ1 NFKB1 RXRA::VDR GLIS2 KLF2 NHLH2 ZNF682 Arid5a TEAD4
ZBTB7B HNF4G POU2F2 PRDM9 KLF15 TFAP2A RARA::RXRG CEBPD ZNF454 Zfp961 ZNF740 TEAD1
ZNF143 TFAP2A FOXC1 ZNF93 KLF14 TFAP2C Stat5a::Stat5b CEBPD Znf423 Zfp961 ZNF740 KLF14
ZFP42 TFAP2C FOXB1 PATZ1 KLF10 TFAP2A ZNF213 SCRT2 ZBTB24 PATZ1 Hmga1 KLF12
CEBPD RUNX3 POU3F2 Zfp961 ZBED4 TFAP2B FEZF2 GABPA ZNF257 KLF10 CEBPD KLF10
ZNF136 TEAD2 POU3F3 TCFL5 KLF15 ZNF454 CTCFL CDX1 ZNF331 ZKSCAN3 NFKB2
ZBED4 TEAD3 POU2F3 Zfp961 ZNF454 ZNF148 ZNF213 CDX2 FOXD2 ZNF652 NFKB2
ZNF682 TEAD4 POU3F1 ZNF281 ZBED4 ZNF263 Tfcp2l1 Hoxa13 ZNF213 ZBTB7C Zfp809
ZNF449 TEAD1 PHOX2A ZNF454 PATZ1 CTCFL ZNF416 CDX4 TFAP2C ZKSCAN5 FEZF2
ZNF549 ZNF257 PHOX2A NHLH2 KLF12 ZNF574 ZNF524 NR1I3 TFAP2B ERF::NHLH1 PRDM9
RARA::RXRG PKNOX1 PROP1 NHLH2 KLF10 ZNF320 SREBF2 KLF11 TFAP2A NEUROD1 ZNF669
THAP1 NKX2-2 PROP1 ZBTB18 KLF15 Zfp961 FOXJ2::ELF1 KLF16 TFAP2A RARA::RXRA SOX13
ZNF708 TCF7L1 HNF1A Bhlha15 ZNF610 Zfp961 FOXO1::ELF1 KLF14 TFAP2B ERF::FOXO1 NR2C2
Prdm14 ZBTB26 HNF1B Bhlha15 MAFA TFAP2A FOXO1::ELK3 KLF10 TFAP2B ETV5::FOXI1 RXRG
ZNF766 ZNF263 PHOX2A ZBTB24 MAFA ZNF454 FOXO1::FLI1 RREB1 TFAP2C FOXO1::ELF1 PPARD
STAT1::STAT2 RARA::RXRG ZNF816 ZNF341 ZNF692 ZNF454 FLI1::FOXI1 SCRT2 TFAP2E FOXO1::ELK1 NR2F1
Hmga1 Pparg::Rxra Pparg::Rxra ZBTB7A ZNF148 ZNF320 ERF::FOXO1 FOXE1 TFAP2E FOXO1::ELK3 PRDM9
ZNF707 HMBOX1 POU4F3 TFAP2C ZNF610 ZNF320 ETV5::FOXO1 THAP1 ZNF281 FOXO1::FLI1 RORA
ZNF75D FOXO1::ELK3 ZNF384 ASCL1 PATZ1 ZNF692 FOXC1 NR2C2 ZNF148 FLI1::FOXI1 RORB
ZNF331 FOXJ2::ELF1 ZNF384 ETV5::FIGLA POU2F3 STAT1::STAT2 FOXC2 PPARD ZNF460 ETV2::FOXI1 RORC
TFAP2C FOXO1::ELK3 ZBED4 EWSR1-FLI1 ZNF692 FOXE1 NKX2-5 ZNF701 NR1H4::RXRA RORA
TFAP2C STAT1::STAT2 NR6A1 ZNF213 ZNF93 FOXD2 CREB1 ZNF530 NR4A2::RXRA STAT1
ZNF682 Stat5a::Stat5b NHLH2 ZBTB14 ZNF460 GRHL1 HNF1A ZNF281 Hand1::Tcf3 Stat5a
ZSCAN29 Stat5a::Stat5b NHLH2 ETV5::FIGLA PATZ1 GRHL2 KLF7 ZNF281 Pou5f1::Sox2 KLF11
ZNF677 STAT1::STAT2 ASCL1 TFAP4::FLI1 ZNF257 PRDM9 KLF14 ZNF263 GRHL2 SP9
STAT1::STAT2 ONECUT3 TFAP2C ZNF530 ZNF669 ZNF281 KLF10 ZNF740 CEBPG EGR3
ZNF175 ONECUT2 TFAP2A ZNF530 Zfp961 ZNF274 ZNF740 ZNF652 Ddit3::Cebpa Nfe2l2
RXRA::VDR ONECUT1 TFAP2B ZNF701 PATZ1 ZNF135 ZNF610 ZNF281 ONECUT3 Mafg
Zic1::Zic2 PHOX2B ZNF610 ZNF281 Tfcp2l1 ZNF281 PATZ1 ZNF148 ONECUT1 NFE2
Nr1h3::Rxra ETV5::FOXO1 ZNF770 ZNF148 ZNF320 ZNF148 KLF14 ZNF281 MGA::EVX1 Mafg
ZNF331 ZKSCAN5 TFAP2A ZNF93 ZNF93 ZNF530 EBF3 ZNF816 STAT1::STAT2
TFAP2A Pparg::Rxra ZNF454 PRDM9 ZNF460 ZNF740 EBF1 ZNF213 ERF::FOXO1
TFAP2C POU4F2 TFAP2E KLF14 PRDM9 ZNF281 EBF1 SREBF1 ETV2::FOXI1
ZNF449 POU4F2 TFAP2E KLF12 ZNF610 ZNF148 TFAP2C ZNF281 FOXJ2::ELF1
ETV5::FOXO1 POU4F1 ZNF460 KLF10 ZBED4 ZFP14 TFAP2A ZNF281 FOXO1::ELF1
ZSCAN29 POU4F3 ZNF135 KLF6 ZNF574 ZNF524 TFAP2B Nr1h3::Rxra FOXO1::ELK1
ETV5::FIGLA ZNF354A NHLH1 KLF5 EOMES ZNF148 EBF3 ZNF547 FOXO1::ELK3
TFAP4::FLI1 ONECUT1 ZBTB14 KLF4 NKX6-3 PATZ1 TFAP2C ZNF549 FOXO1::FLI1
ERF::NHLH1 ZNF675 ZNF610 KLF1 ZNF816 ZFP14 TFAP2B ZNF213 FLI1::FOXI1
ERF::FIGLA ZNF384 ZNF417 KLF15 MYBL1 PRDM9 TFAP2A ZBTB14 ZNF140
ETV2::FIGLA HOXB13 ZKSCAN3 SP9 MYBL1 ZNF257 TFAP2C ZNF574 Pparg::Rxra
TFAP4::ETV1 ONECUT3 Pparg::Rxra MAZ TFAP2A ZNF701 TFAP2E ZSCAN31 DMRTA1
POU2F1::SOX2 ERF::NHLH1 ZNF175 PRDM9 TFAP2E ZNF320 BACH2
Pou5f1::Sox2 ERF::FIGLA Pou5f1::Sox2 ZNF530 ZNF682 ZNF692 Bach1::Mafk
POU2F1::SOX2 ETV2::FIGLA TFAP2B PRDM9 ZNF708 ZNF454 MAFG::NFE2L1
Pou5f1::Sox2 TFAP4::ETV1 TFAP2B ZNF740 ZNF418 ZBTB7C ZSCAN31
ZNF281 KLF2 TFAP2C ZNF281 Stat5b TFAP2B PRDM9
ZNF148 KLF7 TFAP2E ZNF148 TFAP2A ZNF454 ZKSCAN5
ZNF460 EGR2 TFAP2E KLF16 TFAP2A TFAP2C ZNF740
ZNF281 EGR3 ZNF417 PATZ1 THAP1 TFAP2A ZNF701
ZNF148 EG