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| # | TF | Motif | Expression in ES- E14 (TPM) | Stimulation/  Downregulation | TF class | TF family | Binding mode | Tissue expression |
| 1 | Stat3 |  | 15.59 | LIF removal should lead to downregulation -> culture in 2i | STAT domain factors | STAT factors | Dimerization domain | Rather ubiquitously, some preferences |
| 2 | Zfx |  | 7.53 | Differentiation should lead to downregulation (reporter of stemness) – RA as stimulant | C2H2 zinc finger factors | More than 3 adjacent zinc finger factors | Downstream of TSS (gr.228809.117) | Tissue-specific – bones, fibroblasts |
| 3 | Esrrb |  | 32.96 | Estrogen addition, LIF removal, CH removal downregulates | Nuclear receptors with C4 zinc fingers | Steroid hormone receptors (NR3) |  | Only in ES cells |
| 4 | Smad1 |  | 1.16 | BMP4 removal should downregulate -> culture in 2i | SMAD/NF-1 DNA-binding domain factors | SMAD factors | Homo-or hetero(with other SMADs)dimer | Ubiquitiously |
| 5 | Smad4 |  | 10.52 | BMP4 removal should downregulate -> culture in 2i | SMAD/NF-1 DNA-binding domain factors | SMAD factors | Homo-or hetero(with other SMADs)dimer | Ubiquitiously |
| 6 | c-Myc |  | 1.61 | Myc module only active in serum -> culture in 2i to downregulate | Basic helix-loop-helix factors (bHLH) | bHLH-ZIP factors | Heterodimer | Macrophages |
| 7 | Klf4 |  | 19.59 | LIF & CH removal downregulates | C2H2 zinc finger factors (SP1-like) | Three-zinc finger Kruppel-related factors |  | ES, gastrointestinal |
| 8 | Tfcp2l1 |  | 8.15 | LIF removal leads to downregulation (activated by Stat3) | Grainyhead domain factors | CP2-related factors |  | Very specialized |
| 9 | Gbx2 |  | 4.84 | LIF removal leads to downregulation (activated by Stat3) | Homeo domain factors | HOX-related factors |  |  |
| 10 | Rex1/Zfp42 | GGCAGCCATTA | 78.23 | Doesn’t change activity when changing ES medium, abruptly downregulated when differentiation is induced | Zinc finger | 4 zinc fingers |  | Only ES |
| 11 | Trp53 |  | 18.83 | P53 inhibitor/activator (MDM2 antagonist), hypoxia  Lif removal -> AURKA inhibition -> p53 activation | p53 domain factors | p53 domain factors |  | Mostly ES cells |
| 12 | Tcf3 |  | 20.59 | CH usually inhibits Tcf3 -> CH removal = high expession | Basic helix-loop-helix factors (bHLH) | E2A-related factors |  | B-cells, lymph nodes, ES cells |
| 13 | Rara::Rxra |  | 5.83 (RARA)  4.13 (RXRA) | Dissociate from multiprotein complex and activate transcription upon retinoic acid addition | Nuclear receptors with C4 zinc fingers | Thyroid hormone receptor-related factors (NR1)::RXR-related receptors (NR2) | Binds as RXR/RAR heterodimer | Fibroblasts, B-cells |
| 14 | Maf (10.1016/j.ydbio.2009.02.001) |  | 0.06 | Activated in neurons -> stimulation by RA | Basic leucine zipper factors (bZIP) | Maf-related factors |  | Lens |
| 15 | Hox (Hoxa5,b3,b5,b6,b8,c4,c5,c6) (10.1016/j.ydbio.2009.02.001) |  | 0 | Activated in neurons -> stimulation by RA | Homeo domain factors | HOX-related factors |  |  |
| 16 | Esrrg (10.1016/j.ydbio.2009.02.001) |  | 0.01 | activated upon RA treatment + direct deactivation by 4-hydroxytamoxifen | Nuclear receptors with C4 zinc fingers | Steroid hormone receptors (NR3) |  | Cell-type-specific (stomach, heart, brain) |
| 17 | Ascl1 (10.3389/fnins.2019.00283) |  | 0.01 | Major neuronal differentiation TF- > stimulation by RA | Basic helix-loop-helix factors (bHLH) | MyoD / ASC-related factors |  | Pituitary gland |
| 18 | Neurog2 (10.3389/fnins.2019.00283) |  | 0 | Major neuronal differentiation TF -> stimulation by RA | Basic helix-loop-helix factors (bHLH) | Tal-related factors |  | Placenta, retina |
| 19 | Pax6 (10.1046/j.1432-0436.1998.6240187.x) |  | 1.37 | Activated upon RA treatment | Paired box factors | Paired plus homeo domain |  | Cerebellum |
| 20 | NICD::CBF1 | CGTGGGAA | 14.88 (Notch1) 15.75 (CBF1) | Negative regulator of neuogenesis, hypoxia positive control |  |  |  |  |
| 21 | Sp1 (control) |  | 26.34 |  | C2H2 zinc finger factors | Three-zinc finger Krüppel-related factors |  | Ubiquitiuously |
| 22 | Arnt::Hif1a |  | 5.63 (Arnt) 7.83 (Hif1a) | Hypoxia (CoCl2), CREBBP-KO | Basic helix-loop-helix factors (bHLH) | PAS domain factors | Heterodimer | Specific, but many cell types (macrophages) |
| 23 | Nr3c1(GR) |  | 2.97 | Direct hormone (cortisol) addition, RA treatment should upregulate | Nuclear receptors with C4 zinc fingers | Steroid hormone receptors (NR3) | RNA polII proximal, binds as homodimer | Ubiquitously, rel. high in ES |
| 24 | Nfe2l2 |  | 3.81 | Gets activated upon oxidative stress | Basic leucine zipper factors (bZIP) | JUN-related factors |  | Mast cells |
| 25 | Nfkb1 |  | 8.36 | lipopolysaccharide, differentiation | Rel homology region (RHR) factors | NF-kappaB-related factors | Homo/heterodimer | All cell types, Immune cells |
| 26 | Creb1 |  | 6.84 | Forskolin to stimulate CREB protein activity | Basic leucine zipper factors (bZIP) | CREB-related factors |  | Ubiquitiously |
| 27 | Atf4/Creb2 |  | 36.75 | Forskolin, jnk inhibition (SP600125), differentiation, ER stress (tunicamycin) | Basic leucine zipper factors (bZIP) | ATF-4-related factors | Proximal promoter & distal enhancer | Ubiquitiously |
| 28 | Gli1 (Hedgehog) | GACCACCCA | 6.83 | Differentiation, sonic hedgehog (Shh) stimulation | Kruppel family of zinc finger proteins |  |  | ES, uterus |
| 29 | Srebf1 |  | 46.73 | Cholesterol addition should lead to downregulation | Basic helix-loop-helix factors (bHLH) | bHLH-ZIP factors |  | Ubiquitiously |
| 30 | Irf3 |  | 10.46 | Activated upon viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling | Tryptophan cluster factors | Interferon-regulatory factors | Forms dimer (DRAF1) with CREBBP | Ubiquitiously, B-cells |
| 31 | Xbp1 |  | 37.9 | ER-stress | Basic leucine zipper factors (bZIP) | XBP-1-related factors |  | Ubiquitiously |
| 32 | Random 1 |  |  |  |  |  |  |  |
| 33 | Random 2 |  |  |  |  |  |  |  |
| 34 | Random 3 |  |  |  |  |  |  |  |
| 35 |  |  |  |  |  |  |  |  |
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