An old friend with a new face: YB-1 and its role in healthy pregnancy and pregnancy-associated complications

Florence Fischer¹, Anne Schumacher¹², Nicole Meyer¹², Beate Fink¹, Mario Bauer¹, Violeta Stojanovska¹², Ana Claudia Zenclussen¹²

¹ Department of Environmental Immunology, Helmholtz Centre for Environmental Research, Leipzig, Germany
² Experimental Obstetrics and Gynecology, Medical Faculty, Otto-von-Guericke University, Magdeburg, Germany

Supplementary Figure 1. Transcriptional analysis of genes related to proliferation, immune response, angiogenesis and invasion in YB-1 deficient mice. The expression of indicated genes was measured by RT-PCR in uterine/decidual tissue of heterozygous YB-1 and wildtype mice at GD14. Shown is the fold-expression of the heterozygous YB-1 mice in comparison to the wildtype group according to ddCt method. n = 4. Egfr, epidermal growth factor receptor; Notch1, neurogenic locus notch homolog protein 1; Zeb1, zinc finger E-box binding homeobox 1; Fasl, fas ligand; Stat3, signal transducer and activator of transcription 3; Tnfrsf1b, tumor necrosis factor receptor superfamily member 1b; Tgfβ1, transforming growth factor beta 1; Cxcl1/5, C-X-C motif chemokine ligand 1/5; Ccl2/11, C-C motif chemokine ligand 2/11; Csf3, colony stimulating factor 3; Timp1/2/3, tissue inhibitor of metalloproteinase 1/2/3; Mtor, mechanistic target of rapamycin kinase; Hif1α, hypoxia inducible factor 1 subunit alpha; Ang, angiogenin, Serpine1, serine (or cysteine) peptidase inhibitor, clade E, member 1; Snai1, snail family zinc finger 1.
### Supplementary Table 1. List of primers used in the present study

| Gene    | Forward primer             | Reverse Primer            | UPL |
|---------|----------------------------|----------------------------|-----|
| Actb    | aaggccaaacgtgaaaagat       | gtgtacagaccagaggcatac      | 56  |
| Ang     | aaacctacccctgaagatg        | agtggacaggcaaccattc        | 85  |
| Ccl11   | agagctccacagccctctcttctcg | gcaggaagttgggagtggag       | 18  |
| Ccl2    | gtccccgtctgctctgg          | cgtaactgcctgtgctgga        | 19  |
| CsF3    | gagcagtgtggtgccacactcttg   | cgtagagcctccaggagac        | 84  |
| Cxcl1   | gactccacccactccaaac        | tgacagcgcagctcattg         | 83  |
| Cxcl5   | ttcttggtgtttaagatgtttctc  | tctgtctagacacagcagtttct   | 26  |
| Egfr    | gacgtagccctcctgcagat      | gcgcaagaaaaactgacatc       | 63  |
| Fasl    | accggtggtatatattctgag     | ttaagggtttgttggttagg       | 21  |
| Gapd    | gggattcctataaaataacggac   | ccatattgtacgaggacga        | 52  |
| Hif1a   | gctgagacagagaggccaaa      | tcattggtgtgcaattgtg        | 59  |
| I11b    | agtggacggacccaaaaag       | tttgaaagcttgagctctcattc    | 26  |
| Mmp12   | ccactgcctccaaaggttta      | gggttgacagggctcatc         | 51  |
| Mmp2    | aaccttgaagagatgcaagt      | ggccacccactgtaaaaccaaa    | 29  |
| Mmp3    | ttgtctttgtatgctagcagc     | gatttgcggccaaagagctc      | 7   |
| Mtor    | ctaaagctccgtgattgaggatt  | gtctatggtgctgtgagtt       | 31  |
| Nfkb1   | agcttcactcggagactgga      | caatccgctatttctcct         | 52  |
| Notch1  | cctcgcacctcaggttaagaga    | cgtaactgcctgcatgattt       | 13  |
| Rplp0   | cttggtacctgctgcaacctc     | tgtgagcctcaggtggtt         | 62  |
| Serpine1| aggatcgaggtaaagcagagcg    | gcgggctgagatgacaa         | 69  |
| Sna1    | cgggtacgccgacctctctca     | ggggtaccaggagagagtcctc    | 12  |
| Stat3   | cgatgctctgggaagagag       | gtctacgagcggcttgt          | 25  |
| Tgfb1   | gcaacattggtgaaactctcagg   | cagccactcaggctgtacca       | 66  |
| Timp1   | gcaaaagacgtcttcgaagaccc   | agggtagatgataacagggaaac    | 76  |
| Timp2   | ttttgcactgagcagtgtg       | ggaatccacctctctctcg       | 21  |
| Timp3   | cacggaagcctctgaaagtc      | tccacccctccacaaagtt       | 62  |
| Tnfrsf11b| agtgcaggtggctgcaaa       | acattttccatggtgctctc      | 81  |
| Ubc     | gtctggtgtgttgagactgctg    | cctgccaggggtatggcttta      | 77  |
| Ybx1    | aggcccaagagacccctaaac     | gtcagaggggcaaaaaagcag      |     |
| Zeb1    | ggaacccgcaagttcaagttg     | ctgatcaggcctgccattc       | 36  |