

Supplementary Materials: Quantification and Application of Potential Epigenetic Markers in Maternal Plasma of Pregnancies with Hypertensive Disorders

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Table S1. Sequences of primers and probes according to assay.

Assay	Target Regions [GenBank ID]		Sequences
Bisulfite sequencing	<i>SOD1</i> [NG_008689.1]	Forward	5'- GTAATTTGTTTGTGTTTTTTTTTTGTG -3'
		Reverse	5'- CAACAACATCTTATATACAAAAACC -3'
	<i>DSCR3</i> [NG_009410.1]	Forward	5'- GTAAATATATGTAAAAATAGGAAGTG -3'
		Reverse	5'- CTTTTACTACATATAACTACACCCCC -3'
	<i>C2CD2</i> [AP001745.1]	Forward	5'- GAGGACGATAAAAGGAATTAGTITTT -3'
		Reverse	5'- ATTTTATCTTATTTTCTCAATTACAC -3'
	<i>UMODL1</i> [AP001745.1]	Forward	5'- GATTTTTTGGAGGAATTTTTTTT -3'
		Reverse	5'- CAAAAATAAATAATTTACTCTACTCC -3'
	ENST000004339 52:-7924-7988 [AL163278.2]	Forward	5'- GAATTGTTTAAGAGGTTTAAGTTTGG -3'
		Reverse	5'- CCTATAATTAAATTACATATAAAACAACC -3'
Real-time PCR	<i>RASSF1A</i> [NG_023270.1]	Forward	5'- TAGTTTGGATTTTGGGGGAGG -3'
		Reverse	5'- CCCCAAATAAAATCGCCAC -3'
		Forward	5'- CGTAGCGGCTTCTCGTG -3'
		Reverse	5'- GTTAGCCATCGGCTAGGTGG -3'
		Probe	5'- FAM-CCGAAGCGTCTGGCCTGTGTGCTCT-BHQ1 -3'
	<i>DSCR3</i>	Amplicon (125 bp)	5'- CGTAGCGGCTTCTCGTGGGCGAGTCCCTGTTCGCAGGTGACG TGTGGACCACGCTCTCCGAAGCGTCTGGCCTGTGTGCTCTC GGGGAGGGGACGCAGGTCAGCCACCTAGCCGATGGCTAA C -3'
		Forward	5'- GAGCCTGAGCTCATTGAGCTG -3'
		Reverse	5'- ACCAGCTGCCGTGTGG -3'
		Probe	5'- HEX -CACCCGCTGGGCGCGC-BHQ1 -3'
	<i>RASSF1A</i>	Amplicon (131 bp)	5'- GAGCCTGAGCTCATTGAGCTGCGGGAGCTGGCACCCGCTGG GCGCGCTGGGAAGGGCCGCACCCGGCTGGAGCGTGCCAAC GCGCTGCGCATCGCGCGGGGACCCGCTGCAACCCACACG GCAGCTGGT -3'
	<i>SRY</i> [NG_011751.1]	Forward	5'- AGATCAGCAGGGCAAGTAGT -3'
		Reverse	5'- TGAAACTTGCAATTTCTCCGC -3'
		Probe	5'- FAM-CAGGGTACTAGGGGGTAGGCTGGTTG-BHQ1 -3'
	<i>GAPDH</i> [NG_007073.2]	Forward	5'- CCCACACACATGCACTTACC -3'
		Reverse	5'- GTGGGAAGAGGGGAAGCTG -3'
		Probe	5'- HEX-AAAGAGCTAGGAAGGACAGGCAACTTGGC-BHQ1 -3'

A Target sequences of *DSCR3* [NG_009410.1]

38629468 GCAAATATATGTAAAAATAGGAAGTGCGGTTTCCCAAAATGAGGTCTGTAAACAACTGATCTAGAAAATGTTCTGGAAAAAGTAAAAAGGAT
CAGGATCTGAGGTCAACTGACCTCTCCCTGCGCTCTGGACAGGCAACAGGCAAGGTTCCCTCTGAGGC**CGTAGCGGCTTCTCGTGGGCGAGTCCC**
TGTTTCGCAGGTGACCGTGTGGACCACGCTCTTCCGAAGCGTCTGGCCTGTGTGCTCTCGGGGAGGGGACGCAGGTCAGCCACCTAGCC**CGATGGCT**
AACAAGTCAGTTTGTCTGAACGGAAGCTTAAACCTAGAAAAGTAACTGGGTTGGGGTGGGGGTGTAGCCACATGCAGTAAAAG 38629837

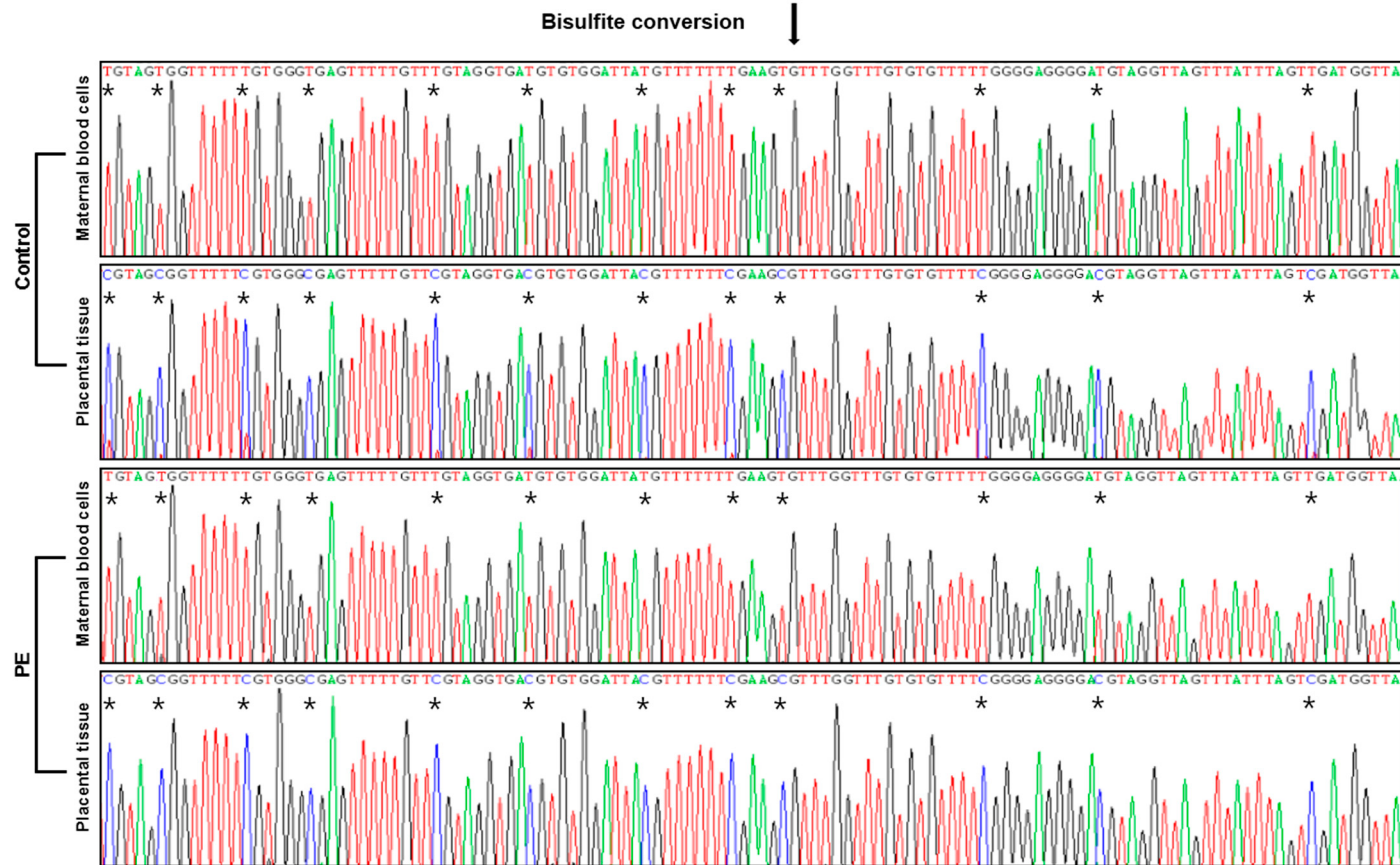


Figure S1. *Cont.*

B

Target sequences of *SOD1* [NG_008689.1]

33037823 GTAACCTGCCTGCCTTTCTCCCTGTGTGGGACTCCTG**CG**GGTGAGAG**CG**TGGCTGAAGACAG**CCGT**GTTATGAAAGGGCCTCCTGTGCTG
TCGAGGTTGTGCTCTGTGAATGTCAT CCCCTGGTGCACAGCAGCACCTTCTACACAGGATACAGTTGGAATGCCGCCCCCTCGAGTTGTGTAAGGCA
 GCAGCCTTGGCCCTTGACATAAGATGCTGTTG 33038042

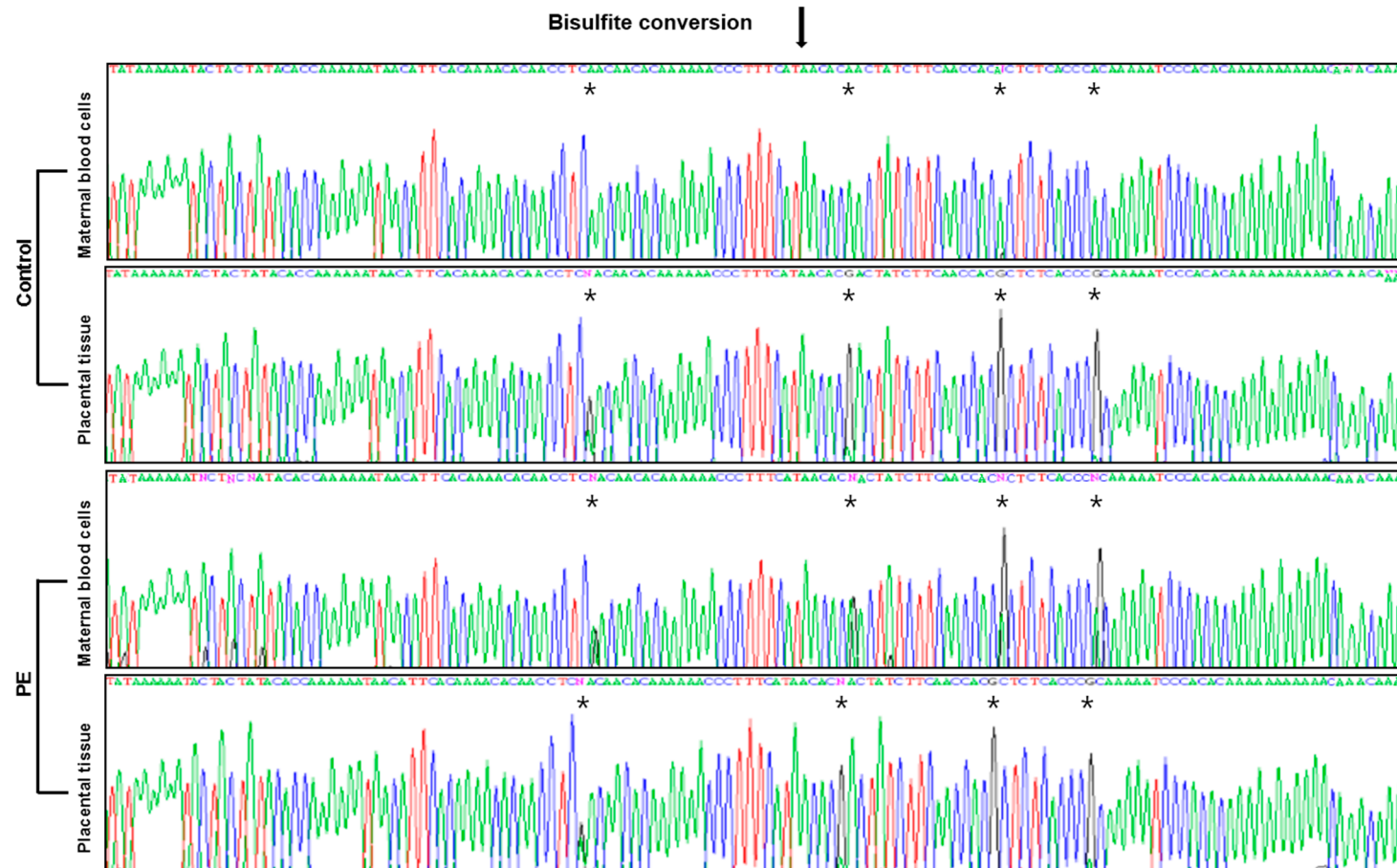


Figure S1. Cont.

C

Target sequences of *C2CD2* [AP001745.1]

43316042 GAGGACGACAAAAGGAACCACTTCTTCTGTGGGTGTACAG**CG**AGGT**CG**CCTGGCCACATCAGGTACCAGAG**CG**AG**CG**CCCTCACCT
 GATAGGCCCTGTACAACCTCAGCCACAGCACTGT**CG**AGGAGGAACA**CG****CG**GAACTAGCAACCTAGGAGGGTAAAGG**CG**GAGTTGGGAGGGAACA**CG**
 AGGCAGGCAGGT**CG**GCTGGCTGCTGAGCTACAGGCTGCACTCCTAGGAG**CG**CTTA**CG**TGTAATTGAGAAAAATAAGACAAAAAT 43316308

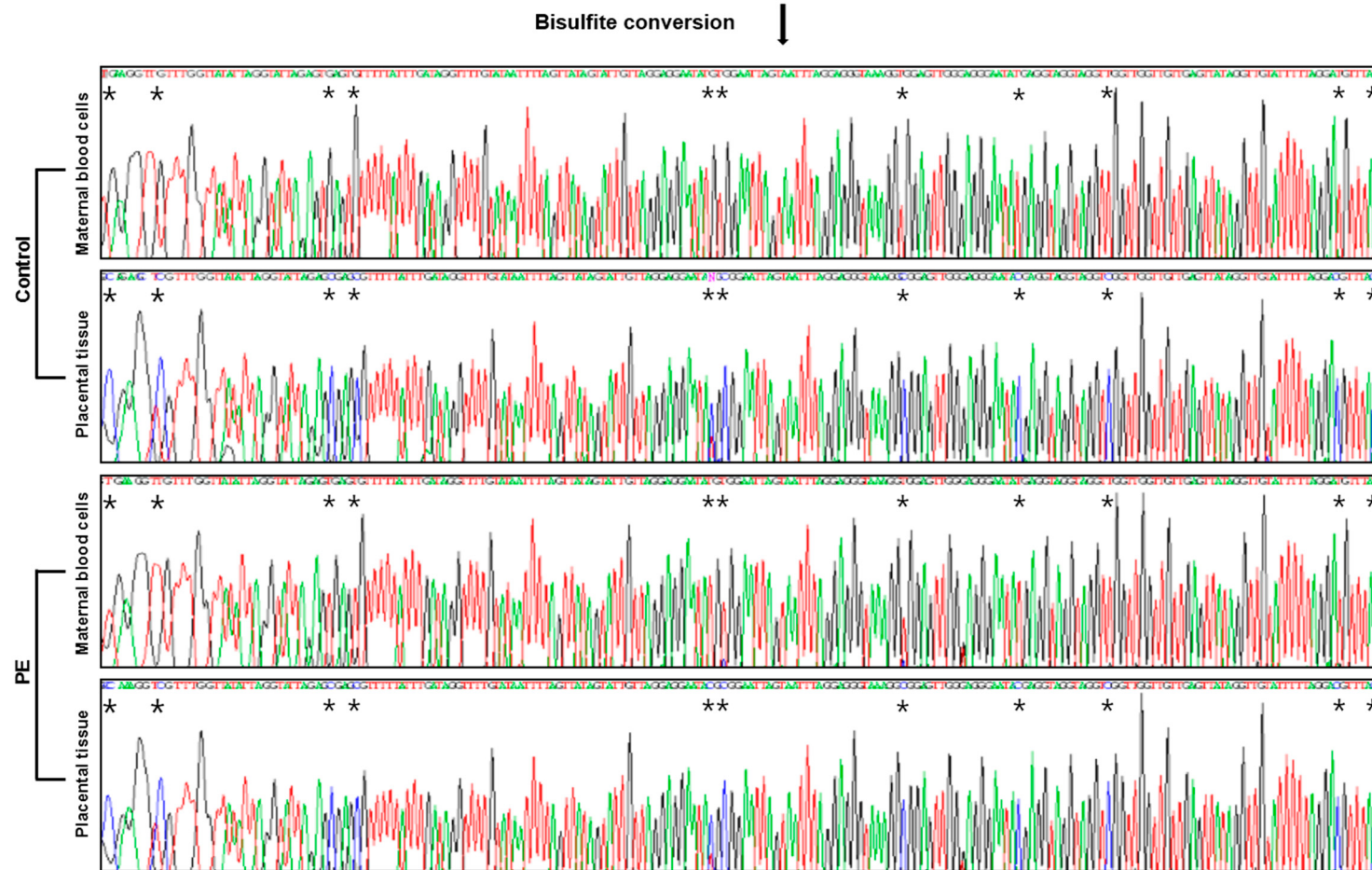


Figure S1. *Cont.*

D

Target sequences of *UMODL1* [AP001745.1]

43483745 GACCCCTGGAGGAATCCCTCCCTCTAAGACTCTGGGACTGGTGCACGCAAGGAGCTATCGTGAACATTGCTCCCAACTGGCC**CG**CTTGCT
TGCCCC**CG**GCTCCCCTTGGCCCCAGTGG**CG**GCTTTGCCTGAATTAGAGGG**CG**TGAGAGCCACCTGTGTCTCAGCACTGCAATTAAAGCAGGAAGC
CCTTT**CG**GAAGCAGC**CG**TGTGCACCAGCCTCCCATGGGTGGAGCAGAGCAAACCACCCACTTCTGCCCTCTG 43484002

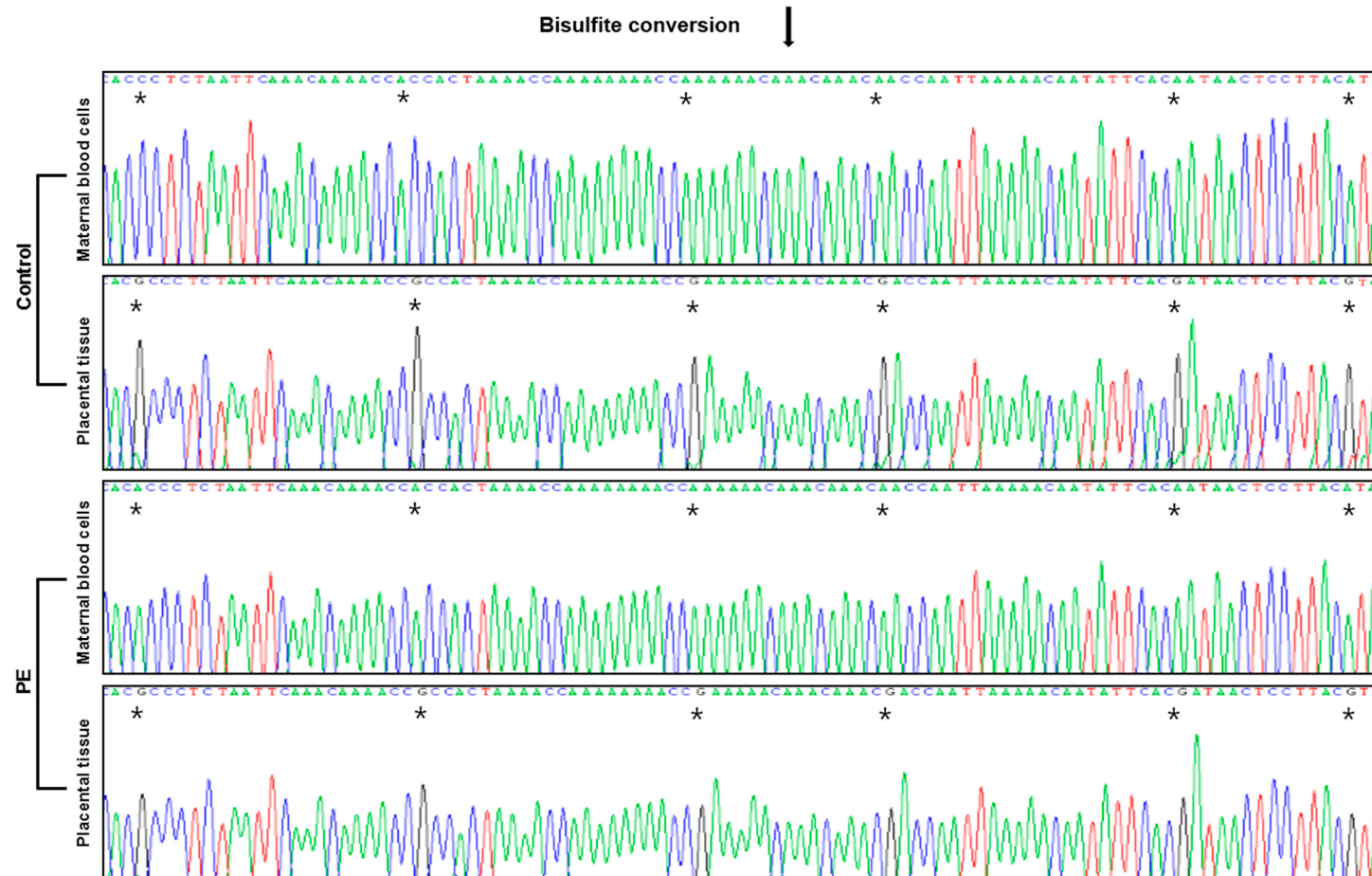


Figure S1. *Cont.*

E

Target sequences of ENST00000433952: -7924 ~ ENST00000433952: -7988 [AL163278.2]

40357575 GAACTGTTCAAGAGGCCCAAGCCTGGTGGCTCAGAACTTGGCAGGATCAAGCATCTCGCCCAGGAATTCATCCCTGCTTGTCTAAGCCGG
CTGGCTCTCGTGACTGACTCGGAACAACAGAGCAGATGTTTGGTGGGAGGCAAGCCTCACCAACATCTGTCTGCGGCGGGAAGGCCTGGGTGT
TCACAGATAGAGCTGGAGTTCCTCGGTGGGTGGCACAGACAATTAGCTGGGGCTGCCTCATGTGAATCTAATTACAGG 40357840

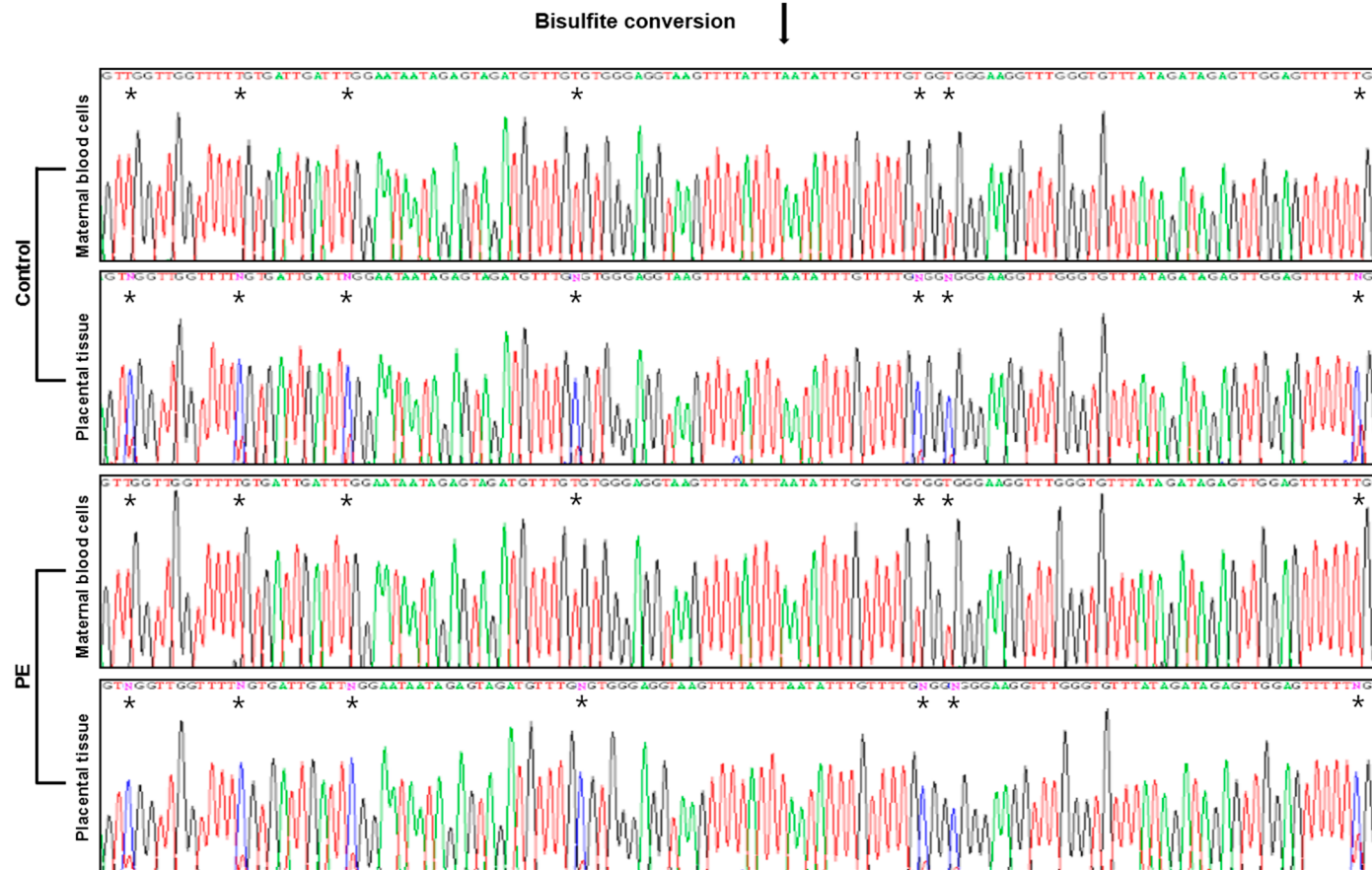


Figure S1. *Cont.*

F

Target sequences of *RASSF1A* [NG_023270.1]

50378016 CAGTCTGGATCCTGGGGAGGCGCTGAAGTCGGGGCCCGCCTGTGGCCCCGCCCGCCGCTTGCTAGCGCCCAAGCCAGCGAA
GCACGGGCCCAACCGGGCCATGTCGGGGGAGCCTGAGCTCATTGAGCTG**CGGGAGCTGGCACCCGCTGGGCGCGCTGGGAAGGGCCGCACCCG**
GCTGGAGCGTGCCAACGCGCTGCGCATCGCGCGGGGCACCGCGTGCAACCCACACCGGCAGCTGG****TCCCTGGCCGTGGCCACCGCTTCCAGCC
CGCGGGGCCCGCCACGCACACGTGGTGCACCTCTGTGGCGACTTCATCTGGGG 50378343

Bisulfite conversion ↓

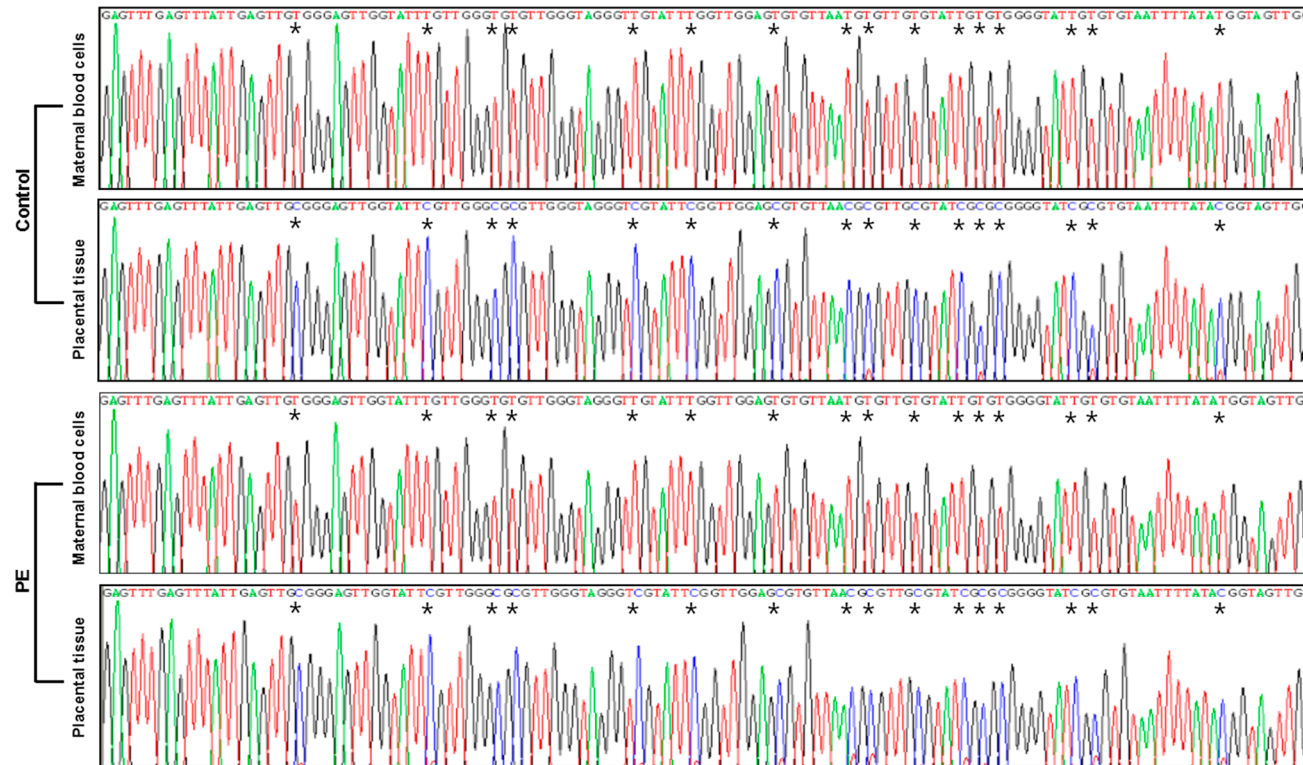


Figure S1. DNA methylation levels of each CpG site in 6 regions (A–F) by bisulfite direct sequencing. The asterisks represent CpG sites in each region. Red and blue peaks in sequences indicate T and C bases, respectively. Probe positions are underlined, and real time PCR regions are highlighted in yellow. The bold characters in the sequences indicate methylation CpG sites of the each region. *SOD1* and *UMODL1* sequences are written in the reverse orientation (3' to 5' direction).