

Supplemental Data

The following materials are available in the online version of this article.

Supplemental Table SI. Rice SABATH methyltransferase genes.

Supplemental Table SII. Primers used for gene expression analysis of *OsSABATHs* via RT-PCR.

Supplemental Figure S1. *OsSABATH33* is a pseudogene. It encodes a truncated protein due to the presence of a premature stop codon at the positions of 481 to 483 of the coding sequence.

Table SI. Rice SABATH methyl transferase genes**Table SI. Rice SABATH methyl transferase genes**

Gene	TIGR ID	Chr ^a	Strand	Chromosome Location	Protein size
<i>OsSABATH1</i>	LOC_Os01g50480	1	-	29312863 - 29311390	379
<i>OsSABATH2</i>	LOC_Os01g50610	1	-	29380292 - 29377624	380
<i>OsSABATH3</i>	LOC_Os02g48770	2	+	29844503 - 29846574	381
<i>OsSABATH4</i>	LOC_Os04g56950	4	-	33733503 - 33731186	405
<i>OsSABATH5</i>	LOC_Os04g57050	4	+	33782242 - 33786150	380
<i>OsSABATH6</i>	LOC_Os04g57070	4	+	33795025 - 33796687	295
<i>OsSABATH7</i>	LOC_Os04g57080	4	+	33798360 - 33800490	379
<i>OsSABATH8</i>	LOC_Os04g57090	4	+	33803567 - 33805014	384
<i>OsSABATH9</i>	LOC_Os05g01140	5	-	96310 - 94475	374
<i>OsSABATH10</i>	LOC_Os06g13310	6	-	7322202 - 7317600	448
<i>OsSABATH11</i>	LOC_Os06g13350	6	-	7343868 - 7341145	376
<i>OsSABATH12</i>	LOC_Os06g13390	6	-	7369766 - 7368205	352
<i>OsSABATH13</i>	LOC_Os06g13460	6	-	7407610 - 7405038	169
<i>OsSABATH14</i>	LOC_Os06g13470	6	-	7421148 - 7416745	401
<i>OsSABATH15</i>	LOC_Os06g13490	6	-	7432792 - 7428731	287
<i>OsSABATH16</i>	LOC_Os06g13510	6	+	7454886 - 7455585	109
<i>OsSABATH17</i>	LOC_Os06g13520	6	+	7458468 - 7460721	268
<i>OsSABATH18</i>	LOC_Os06g13530	6	-	7468414 - 7467751	147
<i>OsSABATH19</i>	LOC_Os06g13550	6	-	7474599 - 7473909	186
<i>OsSABATH20</i>	LOC_Os06g13560	6	-	7481195 - 7479074	375
<i>OsSABATH21</i>	LOC_Os06g20630	6	-	11889148 - 11886861	346
<i>OsSABATH22</i>	LOC_Os06g20770	6	-	11975246 - 11972576	366
<i>OsSABATH23</i>	LOC_Os06g20790	6	+	11991873 - 11983849	371
<i>OsSABATH24</i>	LOC_Os06g20920	6	-	12087594 - 12081450	339
<i>OsSABATH25</i>	LOC_Os06g20960	6	-	12117524 - 12114576	360
<i>OsSABATH26</i>	LOC_Os06g21020	6	-	12144412 - 12140325	400
<i>OsSABATH27</i>	LOC_Os06g21760	6	+	12571596 - 12573253	240
<i>OsSABATH28</i>	LOC_Os06g21820	6	+	12603825 - 12605643	350
<i>OsSABATH29</i>	LOC_Os06g21830	6	+	12607804 - 12608319	172
<i>OsSABATH30</i>	LOC_Os06g22440	6	+	13040901 - 13043159	367
<i>OsSABATH31</i>	LOC_Os10g09360	10	-	4821809 - 4821396	138
<i>OsSABATH32</i>	LOC_Os11g15030	11	+	8451461 - 8454568	388
<i>OsSABATH33</i>	LOC_Os11g15040	11	+	8461158 - 8463673	204
<i>OsSABATH34</i>	LOC_Os11g15060	11	+	8472066 - 8474370	376
<i>OsSABATH35</i>	LOC_Os11g15130	11	+	8523516 - 8525669	288
<i>OsSABATH36</i>	LOC_Os11g15180	11	+	8556112 - 8558343	366
<i>OsSABATH37</i>	LOC_Os11g15300	11	+	8643774 - 8645126	350
<i>OsSABATH38</i>	LOC_Os11g15310	11	+	8647797 - 8650728	312
<i>OsSABATH39</i>	LOC_Os11g15340	11	+	8671640 - 8673396	203
<i>OsSABATH40</i>	LOC_Os11g15410	11	+	8726937 - 8728351	266
<i>OsSABATH41</i>	LOC_Os06g21720	6	+	12554481 - 12554816	112

Table SII. Primers for gene expression analysis of *OsSABATHs* via RT-PCR

Gene Name	Forward Primer Sequences (5'-3')	Reverse Primer Sequences (5'-3')
<i>OsSABATH1</i>	ACCAACGACTTCAACACCATCTTCT	ACCTGAGGAACAGGCTGAAGTCTCTC
<i>OsSABATH2</i>	AGGGAAAGATGTACATATCAAGCACGAG	GTACGTCTGCACGTAGTCCATCCTGAAC
<i>OsSABATH3</i>	GAAGGCTCTGCCTCCCTACTACATT	AAGAAGCCCATACATGTAGTCTACT
<i>OsSABATH4</i>	ACGTGTTACCTCCACCTTCTCTTT	GGATGTTGAAGCTGTCCCTCTTCTC
<i>OsSABATH5</i>	TATGAAGTGTATTGCAGCATGTTTCGAG	TTACACCAGTGAAAGCGAGCATAGAAT
<i>OsSABATH6</i>	ACGGATCAAGGCTACATCTATGAAGTG	GAAAGTGAGCATAGAATATGGGGGAAG
<i>OsSABATH7</i>	CAGCTTCTATACGGCGCCATGTTCT	CAGCGAAAGGGAACACACAATATG
<i>OsSABATH8</i>	CGTACAACAAGGAGAAGGTGTTTCGTC	GACGTTGAAGCTGTCCATCCTCTC
<i>OsSABATH9</i>	GATAGCCTGGACTACGTGGTGTCTCGT	CTAGATCTGCTTGGGATTGGCAGTAG
<i>OsSABATH10</i>	ACTAGAGGCTAGTGAAAAATCTCTCTTG	GACTCCAGGACTGACCTAATGAGATTAC
<i>OsSABATH11</i>	CACAAAGGAGATATACTACCTGCATACC	CATTTACATCTCCACTATATGGGTCCCTC
<i>OsSABATH12</i>	AAGGTAACCAAGAAGTATACACTGGTC	GTCCTTGTAGAACTGCTCTTGGAAATAGT
<i>OsSABATH13</i>	AGGATGAGGATGTATACAATGGAAGTC	CTATCAAAGACTCCAGCACAGATCTAA
<i>OsSABATH14</i>	AAGACTACCCCTAAATCGGTGATAAAG	GAAGAGCACGCTAGTATAGATTCTCCA
<i>OsSABATH15</i>	ATCTAGTGGTCAGATGCTACTCACTTTC	ATAGCACTCCATCTCCATATGTTCTTGG
<i>OsSABATH16</i>	GACCGAATACACTAGTCTTCACTCTGA	ATGTAGGGAATACGATGAATGGAAGAG
<i>OsSABATH17</i>	GTGACTACACCTGAAGAAGTATAAAGC	ATGAGTAGCAAACAACCTCTCCATAAC
<i>OsSABATH18</i>	AGTTGTACCAGGATCAGTTCAGAAG	ATGACAAGACTATGACCGAGTACTTCAC
<i>OsSABATH19</i>	AAACTATGCCAACAACTCTAGGCTTC	AGCCCAGAGATATAGAATGGAGGTAAC
<i>OsSABATH20</i>	AGTAGCACTGCCTCCATTCTATATCTCT	ATACAGTGGTAGGTTGAATGACTCCAG
<i>OsSABATH21</i>	AGGACTTTTCAATTGTTCTCTCACACT	GTACATAGCCCTTCTTTCTCAAGATG
<i>OsSABATH22</i>	CTACCTGGCAATGACTTTAACTACGCTCT	GAACAGTGAGAAGTCTCTTTGAACTT
<i>OsSABATH23</i>	AGAAAAGCTTGACTCCTTCTACATTCC	TCACATCGCTCTAGTAAGAGACAAAACA
<i>OsSABATH24</i>	CTCCAGATGATCTTAAGGAGGGTAAAA	GTGCGTAGAGTGGTATGTAGAAGGAAT
<i>OsSABATH25</i>	GTCATCTATGAGAGGCTTTTCACTTTC	GCTACAGATACCCTTTCCATACTTGAG
<i>OsSABATH26</i>	CATGGTACCTGGGTCATTTTATGATAG	GTGCATAGATAGGTATGTGGAATGTGTC
<i>OsSABATH27</i>	GGTGGGAGTATGGACAGCTTCAAC	CTCTCCATCCGGACAAATAGCTTG
<i>OsSABATH28</i>	GGAGTCCAGTTACCTCAAAAACAGTAA	AAGGTGGAGGTGAACACGTCGATAGAT
<i>OsSABATH29</i>	GGGACGATGGACAGCTTCAACAT	GTGGAAGTGGACCCCATCTCGT
<i>OsSABATH30</i>	AGCTCTGCGTACTCCTCAACGATCT	AGTCTACAGCCCTCATCTTCAGAAAC
<i>OsSABATH31</i>	AGATTTGGCGTGGCTGACTTGGACT	AGGCTGAAAGAAGAGCAGACGAGAT
<i>OsSABATH32</i>	GATCCAATTCTTTCTCAATGACCTACC	CTGAATACATCTGTGCTATTCTCCCTA
<i>OsSABATH33</i>	AAGGAGAAGCTGGACTCTTTCAACATT	GCATACCATGAGCGCACTTTACTCTAT
<i>OsSABATH34</i>	AGGACCATAACAACACTATCAAGGAGAG	ATCTCATTTGGAGGAACGTGAGAAAT
<i>OsSABATH35</i>	GGTGACAAAGCTCTACCAAAATCAGTT	TCATCGAGTATAGAATCCCCGAAAT
<i>OsSABATH36</i>	GGGTACAACCTCCTCCGTACTATGTC	CTTGTGAAAGCAACTCGAAAATAGTGG
<i>OsSABATH37</i>	GGCAACATTTATATAGGGGTGACTACAC	GCTTTGTTGTACTAGCTGCTTCAGTTC
<i>OsSABATH38</i>	GAGGTCCAGATATTTCTCAATGACCTAC	CTCAAACCTGGTCCAAGTAGAGTTTCTC
<i>OsSABATH39</i>	AAGAGAGCCAGTTGTTTCGACATCATAG	AGTGACACAGAAATGGCCATAATGC
<i>OsSABATH40</i>	CCGAGGTATAGCTTACAAGGAGGTATTT	CACTGCAAAGAGGTCATCGATTATT
<i>OsSABATH41</i>	ATGGACAGCTTCAACATCCCGTCGTA	CTCTCCATCCGACAAAACAGCTCAT

M K I E R D F H M M K G D S E F S Y A K
1 ATGAAGATCG AGCGAGATTT CCACATGATG AAAGGGGACA GTGAGTTCAG TTATGCCAAG
N S R I Q K R V V L A A K P I V E K A V
61 AATTCAAGGA TCCAAAAAAG AGTTGTCTTT GCTGCCAAAC CAATAGTTGA GAAAGCTGTA
R E V C I D L H P Q S M V I A D L G C S
121 CGGGAAGTGT GCATAGATCT TCATCCTCAA TCAATGGTCA TTGCTGACCT TGGCTGCTCC
F G A N T L L F I S E V I T T I Y E D Y
181 TTCGGTGCAA ACACACTCCT CTTTCTCTCT GAGGTGATCA CCACAATATA TGAGGACTAT
N N T I K E S P M E V Q F F L N D L P S
241 AACAAACCCA TCAAGGAGAG CCCCATGGAG GTCCAGTTCT TCCTCAATGA CCTACCAAGC
N D F N H I F Q S L E Q F E Q L I T Q Y
301 AATGACTTTA ACCACATCTT CCAATCACTA GAGCAGTTTC AGCAGTTGAT AACGCAATAT
C A C K G L Q P P P H F V A G L P G S F
361 TGGCCTTGCA AAGGGTTACA ACCTCCCCCG CACTTTGTTC CAGGCCTGCC AGGTTCCCTC
Y T R L F P C N S V H L F H S S M S V M
421 TACACTAGAC TCTTCCCTTG TAATAGCGTC CATCTCTTCC ATTCTCCCAT GAGCGTCATG
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481 TGA CTCTCTC AGGTTCTCGA GCAGCTTGAT GGCAGCATGA ATGAGGGGAA CATTACATA
541 GGAGCGACTA CACCACCATC CGTGGCAAAG CTCTACCAA ATCAGTTTGA GAAAGACTTC
601 TCACGGTTCC TCCAGATGAG ATGCATGGAG ATTGTGCCCC GAGGCCGGAT GGTGCTGACG
661 GTTGCTGGGA GGAAGAGCAA AGATGTGTTC AATGCAGGAG GGACGACCAC GATATTTGAT
721 TTGCTTTTCA AAGGGCTACG TATTCTTGTT GCTGAGGGTC GTGTTGCCAA GGAGAAGCTG
781 GACTCTTTCA ACATTCCAGT GTACTGCCCT TCAGCTGATG AGCTGACGCA GCTGGTGCAG
841 CAGTGCGAGC TGCTTGACAT AAGTGACATT CAACTCTTCC AGATGGATGA GAACCGCATG
901 CATGACTCGG AGCAAGCAGA GGGCACCACC GCCGCTCACA CAGCGGGACA GAGCATGTCT
961 GCAACTCTAA GGGTGGCGAC AGAGTCCCTG GTAGCAAGCC ATTTTGGGGA GGACATACTC
1021 GAGGAGATCT TCACGGTGTT TGCACGTAAT TTCACTAGTT ATATTGAGAG TGAGGTTGAG
1081 AAAAGTGGA TCACCATCAT CACACTGTAC TTGCAGGCAA AACACTAG

Figure S1.