

Bisulfite sequences of the *BEN1* promoter

ccattccatctcattcacgcgttttattttctctcattcatattaattatatattaatcacacaatcctaataatatcccttaatctatgcct
 agaacatgcatggtattataattaatacattcgacaccactagaagccaaaagtatatagtagtaaaaaaaaaagaagaagaagctggtttgtagct
 aagaatgaaaataacggaatccaataacaatggttgtaataaacggacaaagaatgtgaattattcacataaatgatctgtaaaatgtgagca
 tttgattataacggatataataaaacaaaaattgtaataaaagagagaagagggcaaacggggaacatgtcacgcggataggtgtgagagagt
 aatgacgtaggttccggttatttaagaacccttctagagaggttcccacacaccagaagagagagaaagagacagagagaaaATGGTGAGAGA
[AGAACAAGAAGAAGATGACAACAACAACAAC](#)

Primers:

pBEN1-BS-Fv: 5'-GTATAGTAGTAAAAAAAAGAAGAAGAAG-3'

pBEN1-BS-Rv: 5'-CTTRTTCTTCTCTCACCATTTTCTCTCT-3'

(RC=reverse compliment)

Replicate 1

>PK_328409-528_5-R_Primer-D_A02.ab1/>Col-0_no_BST
 NNNNNNNNNNNCTCTTCTGGTGTGTGGGACCTCTCTAGAAGGGTTCTTAAATAACGGAACCTACGTCATTTACTCTCTCA
 CACCTATCCGCGTGACATGTTCCCGTTTTGCCCTCTTCTCTCTTTATTACAATTTTTGTTTTATTATATCCGTTATAAT
 CAAATGCTCACATTTTACAGATCATTATGTGAATAATTCACATTCTTTGTCGTTTTATTACAAACATTTGTTATTGGATT
 CCGTTATTTTCATTCTTACGTACAAACCAGCTTCTTCTTTTTTTTTACTACTATAN

>RC_328409-528_5-R_Primer-D_A02.ab1/>Col-0_no_BST
 NTATAGTAGTAAAAAAAAGAAGAAGAAGCTGGTTTTGTACGTAAGAATGAAAATAACGGAATCCAATAACAATGTTTGTAAATAAAC
 GGACAAAGAATGTGAATTATTACATAAATGATCTGTAAAATGTGAGCATTGATTATAACGGATATAATAAAACAAAAATTGTA
 ATAAAGAGAGAAGAGGGCAAAACGGGGAACATGTCACGCGGATAGGTGTGAGAGAGTAAATGACGTAGGTTCCGTTATTTAAGAA
 CCCTTCTAGAGAGGTCCACACACCAGAAGAG

>PK_328409-529_6-F_Primer-C_B02.ab1/>Col-0_BST
 NNNNNNNNNNGTAGATGANATAAATGGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTATATA
 AATGATTTGTAAAATGTGAGTATTTGATTATAATGGATATAATAAAATAAAAATTGTAATAAAGAGAGAAGAGGGTAAAA
 TGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGTAGGTTTTGTTATTTAAGAATTTTTTTAGAGAGGTTT
 TTATATATTAGAAGAGAGAGAAAGAGATAGAGAGAAAATGGTGTGAGAGAAGAACAAGACNNCCTNCNNCCTTCCCTCCCC
 CCACCTATCCACATAACCATTTTCCCCCTTTCACCCCTTCTCTCTTTATNCAAATCTTTTTTGCTCATCNCNNACNAAT
 CAAATACCCCATTTTTCACATCNNTCTTCTAAATAATTCCATTCTTTATCCATTTTCCCTCACATTAGGCTAATTCCTC
 ACTNTTTTCTTTCCTTATACAAACNNCTTCTTCTTCTTTTNGGGTACNCNANACCAGCTNNTGCTNCCTTTAGTNNN

>PK_328409-530_6-R_Primer-D_C02.ab1/>Col-0_BST
 NNNNNNNNNNNCTTCNATATATAAAAAACCTCTCTAAAAAAATTCTTAAATAACAAAACCTACATCATTACTCTCTCACAC
 CTATCCACATAACATATTCCCCATTTTACCCTCTTCTCTCTTTATTACAATTTTTATTATATCCATTATAATCAA
 ATACTCACATTTTACAAATCATTATATAAATAATTCACATTCTTTATCCATTTTATACAAACATTATTTAAATTCCA
 TTATTTTCATTCTTACATAACAACTTCTTCTTCTTTTTTTTTACTACTATAN

>PK_328409-531_7-F_Primer-C_D02.ab1/>ben1_O_pBEN1_BST
 NNNNNNNNNNNNGTNNATGANATAANGGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTAT
 ATAAATGATTTGTAAAATGTGAGTATTTGATTATAATGGATATAATAAAATAAAAATTGTAATAAAGAGAGAAGAGGGTA
 AAATGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGTAGGTTTTGTTATTTAAGAATTTTTTTNNAGAGG
 TTCTTATATATTAGACNACAGAGCAAGAG

>PK_328409-532_7-R_Primer-D_E02.ab1/>ben1_O_pBEN1_BST
 NNNNNNNNNNNNNCNCNCTATATATAAAAAACCTCTCTAAAAAAATTCTTAAATAACAAAACCTACATCATTACTCTCTC

ACACCTATCCACATAACATATTCCCCATTTTACCCTCTTCTCTCTTTATTACAATTTTTATTTTATTATATCCATTATAA
TCAAATACTCACATTTTACAAATCATTTATATAAATAAATTCACATTCTTTATCCATTTATTACAAACATTATTATTAAT
TCCATTATTTTCATTCTTACATACAAACCAACTTCTTCTTCTTTTTTTTACTACTATACANN

>PK_328409-533_8-F_Primer-C_F02.ab1/>ben1_R_pBEN1_BST
NNNNNTNNGNNTGTANGATGANNTAATGGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTAT
ATAAATGATTTGTAATAATGTGAGTATTTGATTATAATGGATATAATAAAAATAAAAATTGTAATAAAGAGAGAAGAGGGTA
AAATGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGTAGGTTTTGTTATTTAAGAATTTTTTTAGAGAGG
TTTTTATATATTAGAAGAGAGAGAAAGAGATAGAGAGAAAATGGTGAGAGAAGAACAAGAANANANACATNTTTACTCTC
TCACACCTATCCACATAANTATTCCCATTTTACCCTCTTCTCTCTTTATTAAATTTTTTATTNNN

>PK_328409-534_8-R_Primer-D_G02.ab1/>ben1_O_pBEN1_BST
NNNNNNNNNNNCTTCNATATATAAAAACTCTCTAAAAAAATTTCTTAAATAACAAAACCTACATCATTTACTCTCTCACA
CCTATCCACATAACATATTCCCCATTTTACCCTCTTCTCTCTTTATTACAATTTTTTATTTTATTATATCCATTATAATCA
AATACTCACATTTTACAAATCATTTATATAAATAATTCACATTCTTTATCCATTTATTACAAACATTATTATTAATTC
ATTATTTTCATTCTTACATACAAACCAACTTCTTCTTCTTTTTTTTACTACTATAN

>PK_328409-535_9-F_Primer-C_H02.ab1/>ben1_T_pBEN1_BST
NNNNNNNNNNGTAGATGANATAATGGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTATATA
AATGATTTGTAATAATGTGAGTATTTGATTATAATGGATATAATAAAAATAAAAATTGTAATAAAGAGAGAAGAGGGTAAAA
TGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGTAGGTTTTGTTATTTAAGAATTTTTTTAGAGAGGTTT
TTATATATTAGAAGAGAGAGAAAGAGATAGAGAGAAAATGGTGAGAGAAGAACAAGAAAACCTACATCATTTACTCTCTC
ACACCTATCCACATAACATATTCCCCATTTTACCCTCTTCTCTCTTTANNNANNTTTTTATTTTATTATATCCATTANAAT
CAATACTCCATTTTCAAATCATTNATATAAATAATTCNNTTNNNCNNGTTCANACATTNTTNTNNNT

>PK_328409-536_9-R_Primer-D_A03.ab1/>ben1_T_pBEN1_BST
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TCACACCTATCCACATAACATATTCCCCATTTTACCCTCTTCTCTCTTTATTACAATTTTTTATTTTATTATATCCATTAT
AATCAAATACTCACATTTTACAAATCATTTATATAAATAAATTCACATTCTTTATCCATTTATTACAAACATTATTATTA
ATTCCATTATTTTCATTCTTACATACAAACCAACTTCTTCTTCTTTTTTTTACTACTATAACCANNNGNNGGCCGTGGNN
NGAGCGTNCGGCCTTTTTGNTGTTGCGTNCGGTCTGTTTTTTGTAACAACAATNGCGCCTANGCCATCTTCNATTTTCGG
NGNCCTTANCTTGCCACGNCCCAGAGCNCNCAGTAGCCGCCGNATCCNCCNNAANNGGGNAGTCCACCANNAGATG
AAGCTGATCGTTTCCCNACCCCNACGGGGGCGCNGTNCNCCAACTTTTGTTCCTGTTTNNAGAGAGCNCANNNTANNA
TTGAGACTGNNNGGCTGGCTGGTTCCCGTNNAGATTNTAAACCGCACACTGTTCCCNATATCTCANGACCGGNAGNA
TATGNNTNAGCCGNCGNANNNNATNNNTANNTAANTGNCTAGNTTNTGCGGTTANTNCCACTTTCNNACNNGAGTC
CTNNNNNCNNTCNCATTTTCTAACNTCTANCAATGNAGCNGTNTTGNAAACCTAAT

Sequence alignment:

ben1_O_pBEN1_BST GGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTATATAAATG
ben1_T_pBEN1_BST GGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTATATAAATG
Col-0_BST GGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTATATAAATG
Col-0_no_BST GGAATCCAATAACAATGTTTGTAAATAACGGACAAAGAATGTGAATTATTCACATAAATG
***** *****

ben1_O_pBEN1_BST ATTTGTAAAATGTGAGTATTTGATTATAATGGATATAATAAAAATAAAAATTGTAATAAAG
ben1_T_pBEN1_BST ATTTGTAAAATGTGAGTATTTGATTATAATGGATATAATAAAAATAAAAATTGTAATAAAG
Col-0_BST ATTTGTAAAATGTGAGTATTTGATTATAATGGATATAATAAAAATAAAAATTGTAATAAAG
Col-0_no_BST ATCTGTAAAATGTGAGCATTGATTATAACGGATATAATAAAAACAAAATTGTAATAAAG
** *****

ben1_O_pBEN1_BST AGAGAAGAGGGTAAAAATGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGT
ben1_T_pBEN1_BST AGAGAAGAGGGTAAAAATGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGT
Col-0_BST AGAGAAGAGGGTAAAAATGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGT
Col-0_no_BST AGAGAAGAGGGCAAAACGGGGAACATGTCACGCGGATAGGTGTGAGAGAGTAAATGACGT
***** *****

ben1_O_pBEN1_BST AGGTTTTGTTATTTAAGAATTTTTTTAGAGAGGTTTTTATATAT-AGNNG-----
ben1_T_pBEN1_BST AGGTTTTGTTATTTAAGAATTTTTTTAGAGAGGTTTTTATATATTAGAAGAGAGAGAAAG
Col-0_BST AGGTTTTGTTATTTAAGAATTTTTTTAGAGAGGTTTTTATATATTAGAAGAGAGAGAAAG
Col-0_no_BST AGGTTCCGTTATTTAAGAACCCTTCTAGAGAGGTCCC-ACACACCAGAAGAG-----
***** ***** ** ***** * * * * *

ben1_O_pBEN1_BST -----
ben1_T_pBEN1_BST AGATAGAGAGAAAATGGTG
Col-0_BST AGATAGAGAGAAAATGGTG
Col-0_no_BST -----

Replicate 2

>PK_329142-503_7_pBEN1-Fv_C04.ab1/>ben1_O_pBEN1_BST
NNNNNNNNNNNNNNNNNNATGANATAATGGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTAT
ATAAATGATTTGTAAAATGTGAGTATTTGATTATAATGGATATAATAAAAATAAAAATTGTAATAAAGAGAGAAGAGGGTA
AAATGGGGAATATGTTATGTGGATAGGTGTGAGAGACTAAATGATGTAAGTTTTGTNANTCCTNCNTTTTGTCCNCCCC
CTCTCCCCCTCTNACCCCNCCNCNCCNCTACAGAGGNCNCCNCTACCNCNNCCCGACCNTCCNCCCCAGTACCN
GTCNNATCCCCTNGACAANNCCCCTCCCCNACGCCCTCCGGACCNNCCCTCCNNNNCTCNCCTCANNANANCCATGCT
NCNCTCTNNNTGTCNCCNCCCCNCCGAGCCACCCTCCTCCACCNCGCCCCCCCGCCCCCCCCCTCTGCCNCTTT
CCCATCGCENNANTGCCTGATGCCACATCCNTCTNNGCCACCCTCCAACCTCGCCGCGTCGTGCTCAACCNCNCTCNC
CNCACCCCTCTCTCNGCCNCCCTCCACCCCNCTCCCTNNCCAANN

>PK_329142-504_8_pBEN1-Fv_D04.ab1/>ben1_R_pBEN1_BST
NNNNNNNNNNNNNGTAGATGANATAATGGAATTTAATAATAATGTTTGTAAATAAATGGATAAAGAATGTGAATTATTTATA
TAAATGATTTGTAAAATGTGAGTATTTGATTATAATGGATATAATAAAAATAAAAATTGTAATAAAGAGAGAAGAGGGTAA
AATGGGGAATATGTTATGTGGATAGGTGTGAGAGAGTAAATGATGTAGGTTTTGTTATTTAAGAATTTTTTTAGAGAGGT
TTTTATATATTAGAAGAGAGAGAAAGAGATAGAGAGAAAATGGTGAGAGAAGAACAAGANNCCCCCTNANNCCCGTCGG
GTCTCCTTANCNATAACCACCTCNCGATGCCCNCGCGCCNTGANCNNGTCNNCTCTCNGAGNGGCNTGCNCCNCCN
GCCCCNNTTGNNGCCNNNACTCCGAGCNNNNNCGCCNCCCCCGCCCCCNCCCCACCCTCTGCCTCGNATCTGAC
TCCTGANTGCCGGTGGCCAACCTCCNCGAATGACNCCCTCCGACNCGGCGCGTCGTGCTCGCCNCCACTCNCNCCCC
CCGACACCNCNCTGGGNTCCGNCNCCCCCTGCCNCCN

>PK_329142-517_7_pBEN1-Rv_C06.ab1/>ben1_O_pBEN1_BST
NNNNNNNNNNNNNNNNNNNAAAACCTCTCTAAAAAATTTCTTAAATAACAAAACCTACATCATTTACTCTCTCACACC
TATCCACATAACATATCCCCATTTTACCCTCTTCTCTTTTATTACAATTTTTATTTTATTATATCCATTATAATCAA
TACTCACATTTTACAAATCATTTATATAAATAGGTACATTTCTTTATCCATTTATTACAAACATTATTTAAATTCAT
TATTTTCATTTTACATACAAACCAACTTCTTCTTTTTTTTACTACTATACAGGNGCNGNNGGTGGTCNTGTAGGGN
CGGGGTGGCTGNCTGNNGCNGNTNGNNNGGTGCGTACATTTACTAGGNNCCTANNNNGCGAGNCGCTGGCNGCGTAG
TCCTGNAGCGGCGGCGCCGNGACCGCTGGTGGGCGCGNCCCTCGAGGGGGNTGTANANGGCCNANGATGANNGNN
CGGNCGNGCNGCNGGATCAGGNTAACNNGCCNNTGATCANGNNGGGATGNCNNGGCCATCGCGNTN

>PK_329142-518_8_pBEN1-Rv_D06.ab1/>ben1_R_pBEN1_BST
NNGNGNNGNNNNNNNNNANGNNNNNNNNNTGCTNNAAAAAGGCTTAAATAACAAAACCTACATNATTTGNTCTCTNNNN
CCTATCCACATAACATATCCCCATTTTACCCTCTTCTCTTTTATTACAATTTTTATTTTATTATATCCATTATAATCA
AATGCTCACATTTTACAGATCATTTATATAGATAGTTNACATTTCTTTATCCATTTATTACAAACATTATTTAAATTC
ATTATTTTCATTTTACATACAAACCAACTTCTTCTTTTTTTTACTACTATACN