

A



B

Hel-BSSS53-z1C1 a**TCT**ATACTACTCTATTAAG.....TTTATATT**CCGT**GGCATCG**CACGGG**CACATAC**CTAGt**

Sh2-7527 a**TCT**CTACTACT_TATTAAG.....TATTCAC**TCCGT**AGCAACGC**ACGGAC**ATTTCAC**CTAGt**

ba1-Ref a**TCT**ATACTACTCTATTAAG.....TT**CCGT**AGCAACGC**ACGGG**TATATAC**CTAGt**

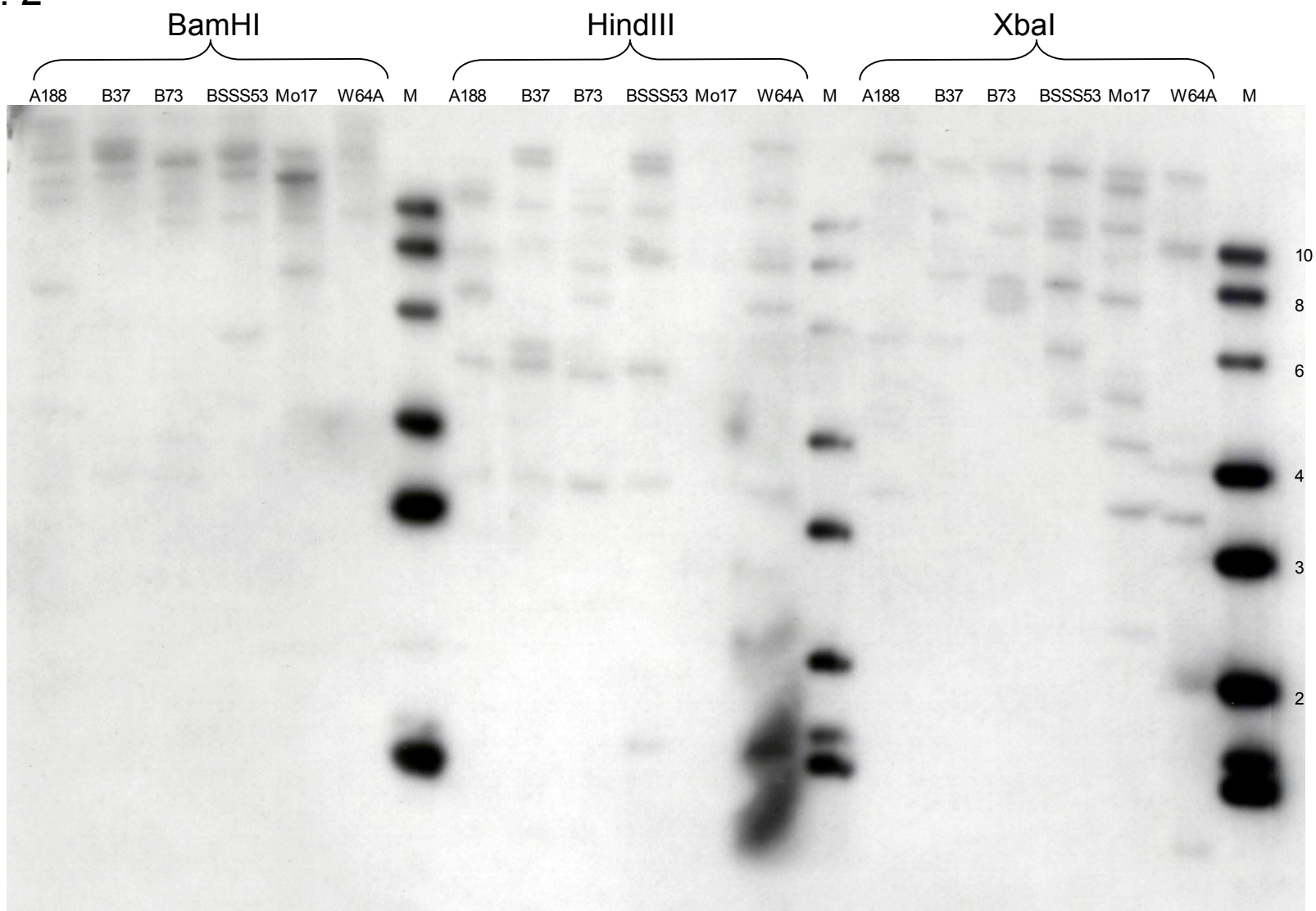
HelA-1a a**TCT**CTACTACTCTAT_AAG.....TTTTACT**CCCGT**CGCAACGC**ACGGG**CACTCAC**CTAGt**

HelB a**TCT**AAAGTATTAAAACTTG.....CCGATAG**GGGCGCCC**GTAT**GGGCGCCC**CATGTT**CTAGt**

Mo17_14577 a**TCT**CTACTACTCC_TTAAG.....ATAGGT**C****CCCGT**TGCAACGC**ACGAG**CACTCGC**CTAGt**

B73_14578 a**TCT**ATACTAC_CTATTAAG.....ATAGGT**C****CCCGT**TGCAACGC**ACGGG**CACTCAC**CTAGt**

Fig. 2



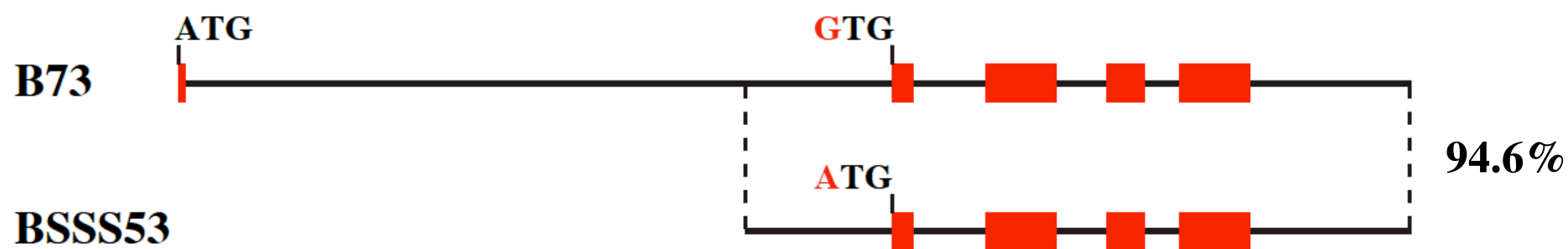
ZmCDA1 cDNA sequence as probe

A

B

	<i>ZmCDA1</i>	<i>ZmCDA2</i>	<i>ZmCDA3</i>	<i>OsCDA1</i>
<i>ZmCDA1</i>				
<i>ZmCDA2</i>	97.3%			
<i>ZmCDA3</i>	97.8%	96.7%		
<i>OsCDA1</i>	90.9%	91.4%	89.4%	

Fig. 4



B73- <i>zmCDA1</i> (En)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCAGTTGCTTCTGCATTGTGTGCTCATCAGGAAGCTGTACAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120
B73- <i>zmCDA1</i> (L)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCAGTTGCTTCTGCATTGTGTGCTCATCAGGAAGCTGTACAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120
BSSS53- <i>zmCDA1</i> (En)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCAGTTGCTTCTGCATTGTGTGCTCATCAGGAAGCTGTACAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120
BSSS53- <i>zmCDA1</i> (L)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCAGTTGCTTCTGCATTGTGTGCTCATCAGGAAGCTGTACAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120
B73- <i>zmCDA2</i> (En)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCGTGTGCTTCTGCATTGTGTGCTGTTATCAGGAAGCTGTGCAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120
B73- <i>zmCDA2</i> (L)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCGTGTGCTTCTGCATTGTGTGCTGTTATCAGGAAGCTGTGCAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120
BSSS53- <i>zmCDA2</i> (En)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCGTGTGCTTCTGCATTGTGTGCTGTTATCAGGAAGCTGTGCAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120
BSSS53- <i>zmCDA2</i> (L)	1	CAACCATGGATGAGGCGCAAGTTGTGGAGTCAAAGGATGGAACCATCTCGTGTGCTTCTGCATTGTGTGCTGTTATCAGGAAGCTGTGCAAGACAGGGATCACAAATTTCTTGACAAAAGCAG	120

B73- <i>zmCDA1</i> (En)	121	TGGAAGAAGCATACCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGATGAAGTGGTTGTTAGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240
B73- <i>zmCDA1</i> (L)	121	TGGAAGAAGCATACCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGATGAAGTGGTTGTTAGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240
BSSS53- <i>zmCDA1</i> (En)	121	TGGAAGAAGCATACCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGATGAAGTGGTTGTTAGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240
BSSS53- <i>zmCDA1</i> (L)	121	TGGAAGAAGCATACCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGATGAAGTGGTTGTTAGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240
B73- <i>zmCDA2</i> (En)	121	TGGAAGAAGCATATCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGACGAAGTAGTAGTACGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240
B73- <i>zmCDA2</i> (L)	121	TGGAAGAAGCATATCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGACGAAGTAGTAGTACGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240
BSSS53- <i>zmCDA2</i> (En)	121	TGGAAGAAGCATATCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGACGAAGTAGTAGTACGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240
BSSS53- <i>zmCDA2</i> (L)	121	TGGAAGAAGCATATCGAGGAGTCGATTGCGGCGATGGAGGTCCATTGGAGCAGTTGTCGTCGCGTAATGACGAAGTAGTAGTACGCTGCCATAACATGGTTCTGAAGCACACTGACCCTA	240

B73- <i>zmCDA1</i> (En)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTCGGGAATAATCGAGCTCTCTGACTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360
B73- <i>zmCDA1</i> (L)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTCGGGAATAATCGAGCTCTCTGACTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360
BSSS53- <i>zmCDA1</i> (En)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTCGGGAATAATCGAGCTCTCTGACTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360
BSSS53- <i>zmCDA1</i> (L)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTCGGGAATAATCGAGCTCTCTGACTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360
B73- <i>zmCDA2</i> (En)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTTGGAATAATCGAGCTCTCGAGCTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360
B73- <i>zmCDA2</i> (L)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTTGGAATAATCGAGCTCTCGAGCTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360
BSSS53- <i>zmCDA2</i> (En)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTTGGAATAATCGAGCTCTCGAGCTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360
BSSS53- <i>zmCDA2</i> (L)	241	CTGCGCATGCTGAAGTAACGCAATTAGAGAGGCTTGCAAAAAGCTTGGAATAATCGAGCTCTCGAGCTGCGAAATTTACGGCTCTCGGAGCCATGCCCAATGTGCTTTGGTGCAGTTTC	360

B73- <i>zmCDA1</i> (En)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGACGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480
B73- <i>zmCDA1</i> (L)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGACGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480
BSSS53- <i>zmCDA1</i> (En)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGACGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480
BSSS53- <i>zmCDA1</i> (L)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGACGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480
B73- <i>zmCDA2</i> (En)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGATGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480
B73- <i>zmCDA2</i> (L)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGATGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480
BSSS53- <i>zmCDA2</i> (En)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGATGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480
BSSS53- <i>zmCDA2</i> (L)	361	ATCTCTCCCGAATCAAGAGGCTGGTTTATGGGGCCAAGGCGAGGCTGCCATCGCCATTGGGTTTGATGACTTCATTGCGAGATGCTCTGAGAGGCACTGGGTTCTACCAGAAGGCCAACA	480

B73- <i>zmCDA1</i> (En)	481	TGGAGATCAAGAAGGCCGACGGCAATGGCGCACTGATCGCCGAGCAGGCTCTTCGAAAAGACTAAGGAGAAGTTCCAGATGTACTGA	566
B73- <i>zmCDA1</i> (L)	481	TGGAGATCAAGAAGGCCGACGGCAATGGCGCACTGATCGCCGAGCAGGCTCTTCGAAAAGACTAAGGAGAAGTTCCAGATGTACTGA	566
BSSS53- <i>zmCDA1</i> (En)	481	TGGAGATCAAGAAGGCCGACGGCAATGGCGCGCTGATTCGCCGAGCAGGCTCTTCGAAAAGACTAAGGAGAAGTTCCAGATGTACTGA	566
BSSS53- <i>zmCDA1</i> (L)	481	TGGAGATCAAGAAGGCCGACGGCAATGGCGCGCTGATTCGCCGAGCAGGCTCTTCGAAAAGACTAAGGAGAAGTTCCAGATGTACTGA	566
B73- <i>zmCDA2</i> (En)	481	TGGAGATCAAGAAGGCTGACGGCAATGGTGCAATTGATCGCTGAGCAAGCTCTTGAAAAGACTAAGGAGAAGTTCCAGATGTACTGA	566
B73- <i>zmCDA2</i> (L)	481	TGGAGATCAAGAAGGCTGACGGCAATGGTGCAATTGATCGCTGAGCAAGCTCTTGAAAAGACT	

Fig. 6

