

Mo17	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGC---GCCACGAACATTTTCGGCTGATCCTC
IBM003	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGC---GCCACGAACATTTTCGGCTGATCCTC
IBM097	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGC---GCCACGAACATTTTCGGCTGATCCTC
IBM182	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGCAGCGCCACGAACATTTTCGGCTGATCCTC
IBM270	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGC---GCCACGAACATTTTCGGCTGATCCTC
IBM304	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGC---GCCACGAACATTTTCGGCTGATCCTC
B73	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGCAGCGCCACGAACATTTTCGGCTGATCCTC
IBM009	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGCAGCGCCACGAACATTTTCGGCTGATCCTC
IBM062	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGCAGCGCCACGAACATTTTCGGCTGATCCTC
IBM144	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGCAGCGCCACGAACATTTTCGGCTGATCCTC
IBM234	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGCAGCGCCACGAACATTTTCGGCTGATCCTC
IBM327	TCCTCGGAGGAGGCGGACAGAGATCCAGCGACAACAGCAGCAGCAGCAGCGCCACGAACATTTTCGGCTGATCCTC

**Figure S5** Sequence alignment of fragment 5 (F5) among parents and selected DH lines of the IBM Syn10 DH population. IBM003, IBM097, IBM182, IBM270, and IBM304 in green rectangular are high-REC lines, and IBM009, IBM062, IBM090, IBM144, IBM234, and IBM327 in blue rectangular are low-REC lines. The bases in red boxes represent the SNP locus in F5.