

**A**

TN18	MAMGAWWEMKKSLLVKLSVYLLI IAMANCARDIPDSVAKNTHVHTCDDISETWRGGLCAKHCTCNKPCR	AEGYDSGFCAAFPFLTCCCKKNCVDALQPR	100
LM6	MAMGAWWEMKKSLLVKLSVYLLI IAMANCARDIPDSVAKNTHVHTCDDISETWRGGLCAKHCTCNKPCR	AEGYDSGFCAAFPFLTCCCKKNCVDALQPR	100
TN18	RSSFPCQW		108
LM6	RSSFPCQW		108

**B**

TN18	MEFKPKATVCAVMLVLLLLSSYDSGGVGVAEARICTGKSOHHSFPCISDKSCTKTCLCEHGAKWTAGYCKFRRCTCQREC		80
LM6	MEFKPKATVCAVMLVLLLLSSYDSGGVGVAEARICTGKSOHHSFPCISDKSCTKTCLCEHGAKWTAGYCKFRRCTCQREC		80

**C**

TN18	MAFLGGSLRVTRSISSRKMMEGKKSHGASGLWRQAPAPVRQLFWRVRRSMLRPKRRAVSFGYDLKSYSONFDDGLVPVHHL		81
LM6	MAFLGGSLRVTRSISSRKMMEGKKSHGASGLWRQAPAPVRQLFWRVRRSMLRPKRRAVSFGYDLKSYSONFDDGLVPVHHL		81

**D**

TN18	MAKCLAAALLLVLASCDGRELNEKVAAARGAGVGESKAMGLPDLPAVTLPTAPTLPLE	TAPTLPLE	TLPTLPVGTITGTSTITGPFVVALPAIPAH	100
LM6	MAKCLAAALLLVLASCDGRELNEKVAAARGAGVGESKAMGLPDLPAVTLPTAPTLPLE	.....	TLPTLPVGTITGTSTITGPFVVALPAIPAH	91
TN18	P			101
LM6	P			92

**E**

TN18	MAAEQDEEEHWRRTMAAVRPNPSRRLVSRRTGTPVKHS	TAAAVSSISMLQPGVTMQSHNDLHSMITSRFRRPRI	SRRRGGHGRARRSGLGEDQGVVEIRV	100
LM6	MAAEQDEEEHWRRTMAAVRPNPSRRLVSRRTGTPVKHS	TAAAVSSISMLQPGVTMQSHNDLHSMITSRFRRPRI	SRRRGGHGRARRSGLGEDQGVVEIRV	100
TN18	EVVWRGSGVRAGLDRMETVKENQKHR			126
LM6	EVVWRGSGVRAGLDRMETVKENQKHR			126

**Figure S3. Difference of amino acid sequences between TN18 and LM6 for candidate genes have been reported to play roles in aphid resistance. A, TraesCS1A02G319900; B, TraesCS5B02G329200; C, TraesCS1B02G397300; D, TraesCS2D02G460800; E, TraesCS6A02G418600LC.**