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GAAGACAATGCAGAGGAGATTGAGAGCTTGCTCGGCAGGGAACAACAGA  
ATGCAAATTACCAACTCGAGCAACAAAATGTCTTGTATTTGGAAGAAAGGCC  
GTA ACTATA CATT TAGCATGTAGATCACGCTGTTTTGAATTATGTTTTGTAAA  
TCAATCAACACAGATATGACTTCTTTTTCTATGTAACATGAAAAAGCAAATT  
TATGGCCATTGCAGAAAGGACAAAGAGTTTGGAAATGAAATCTTAACATGT  
AAATCTTTATTGGACAATTAATATAGCTCCCATGCATAATAAATTGCAATGA  
AAGAACCA

**Figure S5.** The sequence at the locus of *GN2* in ‘YIL19’. The black vertical arrow indicates the transcriptional start site for *GN2*. The two exon sequences of *GN2* are in capital letters. The adenylation signals (AATAAA) are in bold and double underlined. Alternative splicing sites are indicated by white vertical arrows. The inserted sequence is flanked by the short direct repeats of TGCATAAGCA, which are underlined.