

表1 SpoA-p 启动子序列分析

Table 1 Prediction of the promoter of SpoA-p

顺式元件 Cis-element	位点 Site	核心序列 Core sequence	注解 Annotation
-300ELEMENT	914(-)	TGHAAARK	Upstream of the promoter from the B-hordein gene of barley
2SSEEDPROTBANAPA	959(-)	CAAACAC	Important for high activity of the promoter
CANBNNAPA	959(-)	CNAACAC	Core of "(CA)n element" in storage protein genes
ABRELATERD1	428(-)	ACGTG	Responsive to dehydration
CAATBOX1	939(-)609(-)223(-)881(+)874(+)	CAAT	Responsible for the tissue specific promoter activity
ACGTCBOX	434(+)434 (-)	GACGTC	Plant bZIP protein DNA binding specificity
ANAERO1CONSENSUS	198(-)	AAACAAA	In promoters of 13 anaerobic genes in silico
ARR1AT	792(+)56(+)484(+)	NGATT	A response regulator
CACTFTPPCA1	423(+)690(+) 442 (-)482 (-)	YACT	A key component of mesophyll expression module 1 in the C4 plant
CCAATBOX1	1134 (+)609 (-)	CCAAT	Synergistic effect of upstream sequences
CGACGOSAMY3	53(+)433(+)601 (-)	CGACG	Required for Amy3D expression during sugar starvation
DPBFCOREDCDC3	956 (-)1107 (-)	ACACNNG	Transcription factors
EBOXBNNAPA	475(-)239(-)362(+)	CANNTG	E-box of napA storage-protein gene
GATABOX	206(-)455(-)953 (-)	GATA	Required for high level and tissue specific expression
IBOXCORE	886 (+)952 (-)	GATAA	Light-regulated
NTBBF1ARROLB	524 (+)	ACTTTA	Required for tissue-specific expression
OSE1ROOTNODULE	141(-)207(-)948 (-)	AAAGAT	Organ-specific elements of the promoters activated in infected cells of root nodules
PYRIMIDINEBOXOSRAMY1A	546 (-)	CCTTTT	Partially involved in sugar repression
SREATMSD	1122(+)	TTATCC	Sugar-repressive element
TATCCAOSAMY	471 (+)	TATCCA	Alpha-amylase gene expression
WBOXHVISO1	276 (-)	TGACT	Sugar-responsive elements