

Supplementary File

Salt Tolerant Promoting *Bacillus* Strains Improves Plant Growth Traits and Regulation of Phytohormones in Wheat under Salinity Stress

Muhammad Ayaz^{1, †}, Qurban Ali^{1, †}, Qifan Jiang¹, Ruoyi Wang¹, Zhengqi Wang¹, Guangyuan Mu², Sabaz Ali Khan³, Abdur Rashid Khan¹, Huijun Wu¹, Xuwen Gao¹, and Qin Gu^{1*}

¹Department of Plant Pathology, College of Plant Protection, Nanjing Agricultural University, Key Laboratory of Integrated Management of Crop Diseases and Pests, Ministry of Education, Nanjing 210095, China.

²Shenzhen Batian Ecological Engineering Co., Ltd, Shenzhen 518057, China.

³College of Environmental sciences, Biotechnology department, COMSATS, Abbottabad (22060), Pakistan.

*Correspondence: guqin@njau.edu.cn (Q.G.); Tel: +86-025-8439-5268.

† These authors contributed equally to this study.

Table S1. Primers used in this study.

Gene Name	Primers	Sequences
Growth promoting genes for qPCR		
CKX2	CKX2 (F):	CGGGATAGGGTACAAGGAGTA
	CKX2 (R):	GTACTTGTCCTTCATCTCCACG
ERF	ERF (F):	TGCCCTTCGATCTGAACATG
	ERF (R):	TCCCACGAATCCTTGCTATTC
ARF	ARF (F):	AGATGTTTCAGCACCTTCACC
	ARF (R):	CAGTCTCCATCCTTGCTTCG
ExpA1	ExpA1(F):	CACCAACAAGCAGTTCTCTTA
	ExpA1 (R):	CATGGATGGACACAATACCTC
P5CS	P5CS (F)	GATTCTCCGATGGTGCTCGT
	P5CS (R):	TTCAACACCCACAGGTCCAC
4-HNE	4-HNE (F):	CAAGTACCACTTCGACCTGAG
	4-HNE (R):	CCTCTTGAAGTGGATGTCGATG
ABARE	ABARE (F):	TTACACCGTGGAGCTTGAAG
	ABARE (R):	TTCACGTTCTCCTTGGACTG
Wheat salt resistance genes for qPCR		
DREB2	DREB1 F:	AGCAGTAATCTTCCCTGTAATG
	DREB1 R:	CAGTTGTTGGTTCACTTCTTTC

MYB	MYB F:	CAGATTGACGACAGCTTCTG
	MYB R:	TCTGTGACAACTCTGCATATC
HTK1	HTK1 F:	GGAGGATCACAAAGGTGAAG
	HTK1 R:	GCCCATCAAAGACTGAAGAA
ACTIN	ACTIN F:	GCCACACTGTTCCAATCTAT
	ACTIN R:	GAGCTTCTCCTTTATGTCTCTG
WRKY17	WRKY F:	CCTCTTTGGCTTCTCCTTTC
	WRKY R:	CAGTTGTATCCGTCTCTCAAC
Bacillus salt-related genes for qPCR		
DegU	DegU F:	TCTATCTATTCATGACGATG
	DegU R:	GTCGGAATTCATTTACTAAG
OstB	OstB F:	GAAGCAACAGGAGAGTATTA
	OstB R:	GCGTTGATCCTTCGAGATATT
OhrR	OhrR F:	GGTACGAATCCAGAGCAATTAT
	OhrR R:	AGCTTGACACCAAGCTTAAA
ComA	ComA F:	GAGTTGAAGGACAAGTAGCC
	ComA R:	GAATCGCAGAGGTCATCATC
SodA	SodA F:	GGTCAAATGCTTCGTCTTATTG
	SodA R:	AGAGCTAGAAGAGGGATGAC
OpuAC	OpuAC F:	ATACATATACAGGCATTACAG
	OpuAC R:	CAGAATCAGACTTCCTAATC
Primers used for salt stress-related genes detections in Bacillus strains		
OpuAC	OpuAC F:	GACCGCCCTGCTTGTCTTTT
	OpuAC R:	CTAGACCCATGCGAAGACCT
OstB	OstB F:	CTGTCTGAATGGCAGACGAA
	OstB R:	CGCAACGTAAATCCCTTCAT
DegU	DegU F:	TCACCAATTATTCGGTGAAGG
	DegU R:	TCATTTCTACCCAGCCGTTT
ComA	ComA F:	GCTTGATCCGATGATTCTCC
	ComA R:	CGACACCGCCTACTTCACTT
OhrR	OhrR F:	ATGGCAGAGCGTTTTGTAGG
	OhrR R:	GGCAAAGTCCACCAGTTTGT
SODA	SODA F:	AAATTACCTCCGCTCCCTTAC
	SODA R:	AAGTAGAAGGTGTTGGCTGG