Gene name	Primer name	Used for	Orientation	Sequence (5'-3')
OsACBP4	ML2465	PCR	Forward	CA <u>GTCGAC</u> CCGTCGATCCTAGTAAGTAC (Sall)
promoter	ML2823	PCR	Reverse	CCC <u>AAGCTT</u> GGCCGACGCCGACGCCGA (<i>Hin</i> dIII)
OsACBP4 CDS	ML2824	PCR	Forward	CCC <u>AAGCTT</u> ATGGGCGGCGACTGGCAG (<i>Hin</i> dIII)
GFP	ML2825	PCR	Reverse	G <u>GGTGACC</u> TTACTTGTACAGCTCGTCCATGCC (<i>BstE</i> II)
OsACBP5	ML2470	PCR	Forward	TAG <u>GGATCC</u> TGACTTCCTCACGCTCTGCT (BamHI)
promoter	ML2473	PCR	Reverse	TAG <u>AAGCTT</u> GCTGCACTCCTCTCTCTC (<i>Hin</i> dIII)
OsACBP5	ML2982	PCR	Forward	GGATCCATGGAGCTGTTCTACGAGCTG (BamHI)
CDS	ML2983	PCR	Reverse	TCTAGATTCAGCAGGGATGTCAGAACTC (XbaI)
DsRED	ML2984	PCR	Forward	TCTAGAATGGCCTCCTCCGAGAAC (XbaI)
	ML2985	PCR	Reverse	GAGCTCCTACAGGAACAGGTGGTGGC (SacI)
OsACBP4 CDS	ML1060	PCR	Forward	TCGGATCCAAGGAGGACAACCTCCGAA
OsACBP5 CDS	ML1111	PCR	Forward	GAGGCTATTCCAGGATGGAT
OsACBP4	ML1109	qRT-PCR	Forward	GCATCTGGCTGCTGGTGTAG
	ML1110	qRT-PCR	Reverse	GCATTTGCATTGACAAGAATCT
OsACBP5	ML1111	qRT-PCR	Forward	GAGGCTATTCCAGGATGGAT
	ML1112	qRT-PCR	Reverse	CTGTCATGTTGGTTGATTGTAT
ACTIN	ML1115	qRT-PCR	Reverse	AGGCCGTCCTCTCTGTAT
	ML1116	qRT-PCR	Forward	GGGGAGAGCATATCCTTCAT

 Table S1. Oligonucleotide primers used in this study

Restriction sites are underlined. CDS, coding sequence.



Figure S1. Characterization of representative transgenic rice expressing OsACBP4::GFP driven by the OsACBP4 promoter. (A) PCR analysis on representative transgenic rice plants using OsACBP4-specific forward primer and GFP-specific reverse primer (ML1109 and ML2825). The PCR band of 1-kb OsACBP4::GFP is indicated. Putative transgenic OsACBP4::GFP rice plants are designated as 876 lines. CDS, coding sequence; M, 1 kb plus

marker; PC, positive control; NC, negative control. (B) Quantitative RT-PCR analysis on representative 21-day-old transgenic rice plants using *OsACBP4*-specific primers (ML1109 and ML1110) and rice *ACTIN* (*OsACTIN*)-specific primers (ML1115 and ML1116). Data are means \pm SD of three independent replicates. Asterisks indicate a significant difference between the treatments and controls (**, *P* <0.01 by Student's *t*-test). (C) Western blot analysis to verify the expression of OsACBP4 in representative 7-day-old rice leaves using antibodies against GFP. The cross-reacting OsACBP4::GFP band (63-kDa) is indicated by an arrow. Bottom, Coomassie Blue-stained gel of total protein (20 µg per well). VC, vector control; WT, wild type.



Figure S2. Subcellular localization of OsACBP4::GFP in transgenic rice after salt treatment. Root cells of 4-day-old transgenic rice seedlings were imaged by confocal laser scanning microscopy. Colocalization of OsACBP4::GFP (green) with ER-Tracker Red (red) (E34250, Invitrogen) in root cells of 4-day-old transgenic rice seedlings. Bars =20 μ m. Representative images were shown after observation with consistent results from at least 20 cells.



Figure S3. Characterization of representative transgenic rice expressing *OsACBP5::DsRED* driven by the *OsACBP5* promoter. (A) PCR analysis on representative transgenic rice plants using *OsACBP5*-specific forward primer and *DsRED*-specific reverse primer (ML1111 and ML2985). The PCR band of 0.9-kb *OsACBP5::DsRED* is indicated. Putative transgenic *OsACBP5::DsRED* rice plants are designated as 927 lines. CDS, coding sequence; M, 1 kb plus marker; PC, positive control; NC, negative control. (B) Quantitative RT-PCR analysis on

representative 21-day-old transgenic rice plants using *OsACBP5*-specific primers (ML1111 and ML1112) and rice *ACTIN* (*OsACTIN*)-specific primers (ML1115 and ML1116). Data are means \pm SD of three independent replicates. Asterisks indicate a significant difference between the treatments and controls (**, *P* <0.01 by Student's *t*-test). (C) Western blot analysis to verify the expression of OsACBP5 in representative 7-day-old rice leaves using antibodies against RFP. The cross-reacting OsACBP5::DsRED band (86-kDa) is indicated by an arrow. Bottom, Coomassie Blue-stained gel of total protein (20 µg per well). VC, vector control; WT, wild type.