Electrophysiological Analysis of Rice OsHKT1;1 Variants

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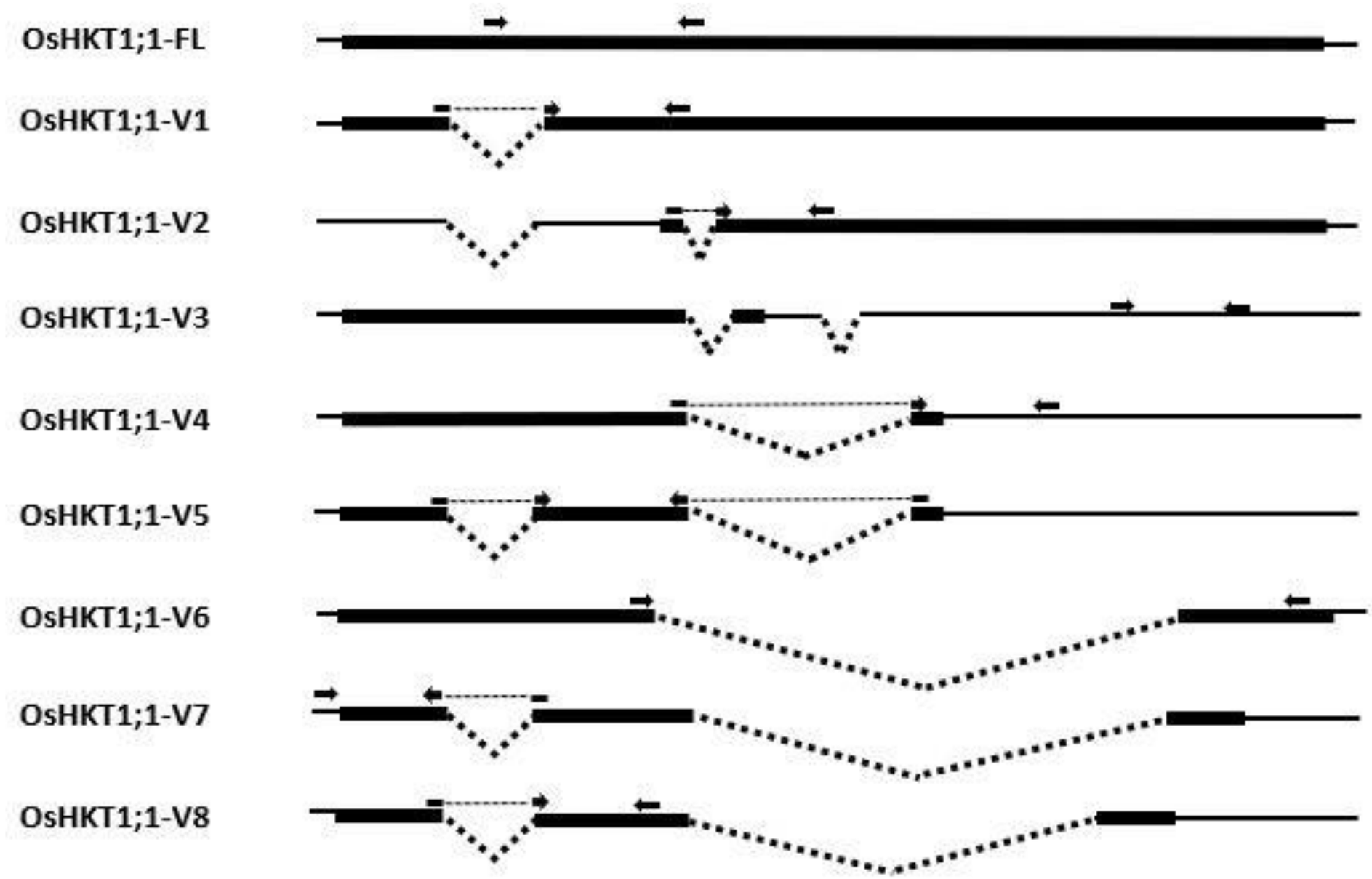
Supplementary Materials: Table S1: Gene-specific primer pairs used for the cloning and in the real-time PCR experiments, Figure S1: Specific primer position of OsHKT1;1-FL and its eight variant for qPCR assay, Figure S2: Nucleotide sequence alignment of Pokkali OsHKT1;1 genomic DNA and full-length cDNA, Figure S3: Nucleotide sequence alignment of OsHKT1;1-FL and its eight variant, Figure S4; Protein sequence alignment of OsHKT1;1-FL and its eight variant, Figure S5: Expression analyzed with RT-PCR.

Supplementary Table S1.
Gene-specific primer pairs used for the cloning and in the real-time PCR experiments.

	5’ → 3’	For full-length cloning	For RT-PCR and real-time RT-PCR
OsHKT1;1-FL	Forward	GTTGAAGAATGCATCCACCAAG	
	Reverse	CTCATTTCAGGATGAACTCCTTG	
OsHKT1;1-FL	Forward		CCCTTTGGTAGTTCAGCTCGTTT
	Reverse		GATGACAGAACTGGAAATGACAG
OsHKT1;1-V1	Forward		AGATGTGTGAATCTCAAGCCCCAG
	Reverse		ATAACCTGTCACTATGCGAACCAA
OsHKT1;1-V2	Forward		CGCAAAACCAGATGCAAGAAATG
	Reverse		CCTCACATGCAAATGTTTGTAGCC
OsHKT1;1-V3	Forward		GCTACAAACATTTGCATGTACCTTCC
	Reverse		AACTTCTGGCAACTGTATCCTAGTG
OsHKT1;1-V4	Forward		AAACCAGGTACCTTCCTTCCGAT
	Reverse		GGCAACTGTATCCTAGTGAGTAGC
OsHKT1;1-V5	Forward		CCAGATGTGTGAATCTCAAGCCCC
	Reverse		CATCGGAAGGAAGGTACCTGGTTTT
OsHKT1;1-V6	Forward		ATGCTTCCTACGGGTTCGTCGGCAGGT
	Reverse		TTATTAGGAGCAGATACGAATGGC
OsHKT1;1-V7	Forward		CCCTCACTAAAGGGAACAAAAGC
	Reverse		GGGGCTTGAGATTCACACATCTG
OsHKT1;1-V8	Forward		GTCGCAAAACCAGAAAGGAAGTCAA
	Reverse		GGATAACTATCAGCTTACCCTCCTC
Actin	Forward		CTAGCCTCACTCAGCACTTT
	Reverse		CGTGGAGATCAGAAGCAC



Supplementary Figure S1.
Specific primer position of OsHKT1;1-FL and its eight variant for qPCR assay. Right arrows indicate forward primers, and left arrows indicate reverse primer.

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Pokkali OsHKT1;1 Genomic DNA    0 ------------------------------------------------------------ 0
OsHKT1;1-FL                     1 GGGCCCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAGAAGCTCAGA 60

Pokkali OsHKT1;1 Genomic DNA    1 ----------------------------------------------------AACTTGAA 8
OsHKT1;1-FL                    61 ATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGATACCTTGAA 120

Pokkali OsHKT1;1 Genomic DNA    9 GCGTATCAA-CTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGTGCTTCGGAT 67
OsHKT1;1-FL                   121 GCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGTGCTTCGGAT 180

Pokkali OsHKT1;1 Genomic DNA   68 CTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCATTTCCAGAGC 127
OsHKT1;1-FL                   181 CTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCATTTCCAGAGC 240

Pokkali OsHKT1;1 Genomic DNA  128 CAGATGTGTGGCAAGTTCTGTCAAACAATCTTACAGTTTTCTGGTTTGCAAAAGTAACCC 187
OsHKT1;1-FL                   241 CAGATGTGTGGCAAGTTCTGTCAAACAATCTTACAGTTTTCTGGTTTGCAAAAGTAACCC 300

Pokkali OsHKT1;1 Genomic DNA  188 TTTGGTAGTTCAGCTCGTTTACTTTGTGATAATCTCATTTGCTGGTTTCCTTGCTCTGAA 247
OsHKT1;1-FL                   301 TTTGGTAGTTCAGCTCGTTTACTTTGTGATAATCTCATTTGCTGGTTTCCTTGCTCTGAA 360

Pokkali OsHKT1;1 Genomic DNA  248 GAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTTCACCTCTGT 307
OsHKT1;1-FL                   361 GAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTTCACCTCTGT 420

Pokkali OsHKT1;1 Genomic DNA  308 GTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATCTGACAGGCA 367
OsHKT1;1-FL                   421 GTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATCTGACAGGCA 480

Pokkali OsHKT1;1 Genomic DNA  368 ACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATCAATGCTAGG 427
OsHKT1;1-FL                   481 ACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATCAATGCTAGG 540

Pokkali OsHKT1;1 Genomic DNA  428 GCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAGTTTACCTTC 487
OsHKT1;1-FL                   541 GCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAGTTTACCTTC 600

Pokkali OsHKT1;1 Genomic DNA  488 AATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAAAATTACGGA 547
OsHKT1;1-FL                   601 AATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAAAATTACGGA 660

Pokkali OsHKT1;1 Genomic DNA  548 ATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAGGTACAGCAAAACAAAAGCATAAC 607
OsHKT1;1-FL                   661 ATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAGGTACAGCAAAACAAAAGCATAAC 720

Pokkali OsHKT1;1 Genomic DNA  608 ATATAATCCTTGCGCTGTGTTGGTTCGCATAGTGACAGGTTATTTCGTAGCTACTGTCAT 667
OsHKT1;1-FL                   721 ATATAATCCTTGCGCTGTGTTGGTTCGCATAGTGACAGGTTATTTCGTAGCTACTGTCAT 780

Pokkali OsHKT1;1 Genomic DNA  668 TTCCAGTTCTGTCATCATTATTATTTACTTTTGGATTGATTCAGATGCAAGAAATGTACT 727
OsHKT1;1-FL                   781 TTCCAGTTCTGTCATCATTATTATTTACTTTTGGATTGATTCAGATGCAAGAAATGTACT 840

Pokkali OsHKT1;1 Genomic DNA  728 GAAAAGTAAGGAGATCAGTATGTATACCTTTTGCATCTTCACAGCAGTGTCCTCGTTCGC 787
OsHKT1;1-FL                   841 GAAAAGTAAGGAGATCAGTATGTATACCTTTTGCATCTTCACAGCAGTGTCCTCGTTCGC 900

Pokkali OsHKT1;1 Genomic DNA  788 AAACTGTGGCTTCACGCCACTAAATAGTAACATGCAACCCTTCAGAAAGAACTGGGTCCT 847
OsHKT1;1-FL                   901 AAACTGTGGCTTCACGCCACTAAATAGTAACATGCAACCCTTCAGAAAGAACTGGGTCCT 960

Pokkali OsHKT1;1 Genomic DNA  848 TTTGCTCCTAGTGATCCCGCAGATTCTAGCAGGCAATACCTTGTTTTCACCACTCTTGCG 907
OsHKT1;1-FL                   961 TTTGCTCCTAGTGATCCCGCAGATTCTAGCAGGCAATACCTTGTTTTCACCACTCTTGCG 1020

Pokkali OsHKT1;1 Genomic DNA  908 GCTATGCGTATGGGTTTTGGGGAAGGTCAGTGGAAAAGCAGAGTATGCTTACATCCTTCA 967
OsHKT1;1-FL                  1021 GCTATGCGTATGGGTTTTGGGGAAGGTCAGTGGAAAAGCAGAGTATGCTTACATCCTTCA 1080

Pokkali OsHKT1;1 Genomic DNA  968 GCATCCTGGGGAGACTGGCTACAAACATTTGCATGTGAGGAGAAATTCTGTTTACATTGT 1027
OsHKT1;1-FL                  1081 GCATCCTGGGGAGACTGGCTACAAACATTTGCATGTGAGGAGAAATTCTGTTTACATTGT 1140

Pokkali OsHKT1;1 Genomic DNA 1028 TCTGAGTGTTACTGGACTGATTCTACTGCAAGTAATGTTTATTTGCTCGTTTGAGTGGAA 1087
OsHKT1;1-FL                  1141 TCTGAGTGTTACTGGACTGATTCTACTGCAAGTAATGTTTATTTGCTCGTTTGAGTGGAA 1200

Pokkali OsHKT1;1 Genomic DNA 1088 CTCAGAGAGCTTAGAGGGAATGAATTGGTTACAGAAATTGGTAGGATTATTATTCCAGAG 1147
OsHKT1;1-FL                  1201 CTCAGAGAGCTTAGAGGGAATGAATTGGTTACAGAAATTGGTAGGATTATTATTCCAGAG 1260

Pokkali OsHKT1;1 Genomic DNA 1148 TGTTAATACAAGACAAGCCGGTGAATCTATCCTTGATATATCAACACTTTCTCCATCAAC 1207
OsHKT1;1-FL                  1261 TGTTAATACAAGACAAGCCGGTGAATCTATCCTTGATATATCAACACTTTCTCCATCAAC 1320

Pokkali OsHKT1;1 Genomic DNA 1208 TCTGTTGCTATTTGCAGTCGTCATGTTAGTATCTCCTCCAAACCCTGTCTTCTAATGAAT 1267
OsHKT1;1-FL                  1321 TCTGTTGCTATTTGCAGTCGTCATGT---------------------------------- 1346

Pokkali OsHKT1;1 Genomic DNA 1268 TTAACTAAATCAGTAGAACACTTAGATTAGTTATTACTGGAACATAACAAATTATCAGGA 1327
OsHKT1;1-FL                  1346 ------------------------------------------------------------ 1346

Pokkali OsHKT1;1 Genomic DNA 1328 GAAACTGTTGGAAAATTTGATAGCTTCATCATTTATAACTTTGAAGATTACTAAACACAT 1387
OsHKT1;1-FL                  1346 ------------------------------------------------------------ 1346

Pokkali OsHKT1;1 Genomic DNA 1388 GCATTCATGACCACTGCAGCTTGCTAGGTTTTATCGATTTTATACGTCACCGAAATAGTA 1447
OsHKT1;1-FL                  1346 ------------------------------------------------------------ 1346

Pokkali OsHKT1;1 Genomic DNA 1448 GTTATGAACTTCAAATCTGCATCTAAATAACTACTGTTGAATAGAGAAAGTGAGACTACT 1507
OsHKT1;1-FL                  1346 ------------------------------------------------------------ 1346

Pokkali OsHKT1;1 Genomic DNA 1508 TTGAACAAATAGGACAGAACTTCTGACAAGGGTTTAAATGAAAAGTAGGCAGCATACAAC 1567
OsHKT1;1-FL                  1346 ------------------------------------------------------------ 1346

Pokkali OsHKT1;1 Genomic DNA 1568 ATGTTTTATGTGGAACAGCATGTTTCCTACTCCTTGTTAACAGATAATCAACTTGCTTGC 1627
OsHKT1;1-FL                  1346 ------------------------------------------------------------ 1346

Pokkali OsHKT1;1 Genomic DNA 1628 AGGTACCTTCCTTCCGATGCTTCATTTCTCACTGCCAATGCTGATAACCAGCCCTTGACA 1687
OsHKT1;1-FL                  1347 ----ACCTTCCTTCCGATGCTTCATTTCTCACTGCCAATGCTGATAACCAGCCCTTGACA 1402

Pokkali OsHKT1;1 Genomic DNA 1688 GATAAAAAGACAAACTCGATTAGCAGAGCACTGTGGAGGAATTTTACCGTTAACAAGCTT 1747
OsHKT1;1-FL                  1403 GATAAAAAGACAAACTCGATTAGCAGAGCACTGTGGAGGAATTTTACCGTTAACAAGCTT 1462

Pokkali OsHKT1;1 Genomic DNA 1748 TCTTGTTTAGCAATGTTCACATTCCTGGCATGCATAACAGAAAGGAAGTCAATTTCTTCT 1807
OsHKT1;1-FL                  1463 TCTTGTTTAGCAATGTTCACATTCCTGGCATGCATAACAGAAAGGAAGTCAATTTCTTCT 1522

Pokkali OsHKT1;1 Genomic DNA 1808 GATCCACTAAATTTCAACATCTTCAGCATAGTTTTTGAGATAATCAGGCAAGTTCACATC 1867
OsHKT1;1-FL                  1523 GATCCACTAAATTTCAACATCTTCAGCATAGTTTTTGAGATAATCAG------------- 1569

Pokkali OsHKT1;1 Genomic DNA 1868 CTTTTTTTTTGTCTGCCCATAACAGAAACTATGGCTACATCAAAATTACATCACTGAAAA 1927
OsHKT1;1-FL                  1569 ------------------------------------------------------------ 1569

Pokkali OsHKT1;1 Genomic DNA 1928 TCCGAATTGCCTAGTATGATCACTAAGAACCACTGAACCAGCATAATTAAATTTGCAAGA 1987
OsHKT1;1-FL                  1569 ------------------------------------------------------------ 1569

Pokkali OsHKT1;1 Genomic DNA 1988 ACATATCAAATCTACGACCTGTCATTTTTTTTTCTTTTTGGTTGCTTACAAGCAAACAG 2047
OsHKT1;1-FL                  1569 ------------------------------------------------------------ 1569

Pokkali OsHKT1;1 Genomic DNA 2048 AAATAACGCCATTTTATTTCCACAGCGCTTTCGGCAATGTAGGCTACTCACTAGGATACA 2107
OsHKT1;1-FL                  1570 -------------------------CGCTTTCGGCAATGTAGGCTACTCACTAGGATACA 1604

Pokkali OsHKT1;1 Genomic DNA 2108 GTTGCCAGAAGTTGTTGAAGCCTGATGCCACTTGCAAAGATGCTTCCTACGGGTTCGTCG 2167
OsHKT1;1-FL                  1605 GTTGCCAGAAGTTGTTGAAGCCTGATGCCACTTGCAAAGATGCTTCCTACGGGTTCGTCG 1664

Pokkali OsHKT1;1 Genomic DNA 2168 GCAGGTGGACCGAGGAGGGTAAGCTGATAGT---------------------------- 2198
OsHKT1;1-FL                  1665 GCAGGTGGACCGAGGAGGGTAAGCTGATAGTTATCCTGGTGATGTTCCTGGGGAGGCTCA 1724

Pokkali OsHKT1;1 Genomic DNA 2198 ------------------------------------------------------------ 2198
OsHKT1;1-FL                  1725 AGGAGTTCATCCTGAAATGAAGCGGCCGCGACGGTACCACTAAACCAGCCTCAAGAACAC 1784

Pokkali OsHKT1;1 Genomic DNA 2198 ------------------------------------------------             2198
OsHKT1;1-FL                  1785 CCGAATGGAGTCTCTAAGCTACATAATACCAACTTACACTTACAAAA             1831
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Supplement Figure S2.
Nucleotide sequence alignment of Pokkali OsHKT1;1 genomic DNA and full-length cDNA. GENETYX ver. 13 was used for exon-intron analysis.

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OsHKT1;1-FL    0 ---------------------------------------------------------- 0
OsHKT1;1-V1    0 ---------------------------------------------------------- 0
OsHKT1;1-V2    0 ---------------------------------------------------------- 0
OsHKT1;1-V3    0 ---------------------------------------------------------- 0
OsHKT1;1-V4    0 ---------------------------------------------------------- 0
OsHKT1;1-V5    0 ---------------------------------------------------------- 0
OsHKT1;1-V6    1 AACAGCTATGACCATGATACGCCAAGCGCGCAATTACCCTCACTAAAGGGAACAAAAGCT 60
OsHKT1;1-V7    1 ----------------------------------ACCCTCACTAAAGGGAACAAAAGCT 25
OsHKT1;1-V8    0 ---------------------------------------------------------- 0

OsHKT1;1-FL    1 ---------GGGCCCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 51
OsHKT1;1-V1    1 -------------CCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 47
OsHKT1;1-V2    1 -----------CCCCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 49
OsHKT1;1-V3    1 ---------GGGCCCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 51
OsHKT1;1-V4    1 -------------CCCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 48
OsHKT1;1-V5    1 ---------------CCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 45
OsHKT1;1-V6   61 GGGTACCGGGCCCCCCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 120
OsHKT1;1-V7   26 GGGTACCGGGCCCCCCCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 85
OsHKT1;1-V8    1 ---------------CCCTCGAGGTCGACGGTATCGATAAGCTTGCTTGTTCTTTTTGCAG 46
                                 Start codon
OsHKT1;1-FL   52 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 111
OsHKT1;1-V1   48 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 107
OsHKT1;1-V2   50 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 109
OsHKT1;1-V3   52 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 111
OsHKT1;1-V4   49 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 108
OsHKT1;1-V5   46 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 105
OsHKT1;1-V6  121 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 180
OsHKT1;1-V7   86 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 145
OsHKT1;1-V8   47 AAGCTCAGAATAAACGCTCAACTTTGGCAGAACCATGCATCCACCAAGTTTAGTGCTAGA 106

OsHKT1;1-FL  112 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 171
OsHKT1;1-V1  108 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 167
OsHKT1;1-V2  110 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 169
OsHKT1;1-V3  112 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 171
OsHKT1;1-V4  109 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 168
OsHKT1;1-V5  106 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 165
OsHKT1;1-V6  181 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 240
OsHKT1;1-V7  146 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTTCCGAATTCGGAGGT 205
OsHKT1;1-V8  107 TACCTTGAAGCGTATCAAACTATACATAGCCATGAAGCTCCTGTTACCGAATTCGGAGGT 166

OsHKT1;1-FL  172 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 231
OsHKT1;1-V1  168 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 227
OsHKT1;1-V2  170 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 229
OsHKT1;1-V3  172 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 231
OsHKT1;1-V4  169 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 228
OsHKT1;1-V5  166 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 225
OsHKT1;1-V6  241 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 300
OsHKT1;1-V7  206 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 265
OsHKT1;1-V8  167 GCTTCGGATCTATTGGGAGAAAGCTCAGCATCTCTGTGGGTTCCTGTCCATGAAGCTCAT 226

OsHKT1;1-FL  232 TTCCAGAGCCAGATGTGTGGCAAGTTCTGTCAAACAATCTTACAGTTTTCTGGTTTGCAA 291
OsHKT1;1-V1  228 TTCCAGAGCCAGATGTGT---------------------------------------- 245
OsHKT1;1-V2  230 TTCCAGAGCCAGATGTGTG--------------------------------------- 248
OsHKT1;1-V3  232 TTCCAGAGCCAGATGTGTGGCAAGTTCTGTCAAACAATCTTACAGTTTTCTGGTTTGCAA 291
OsHKT1;1-V4  229 TTCCAGAGCCAGATGTGTGGCAAGTTCTGTCAAACAATCTTACAGTTTTCTGGTTTGCAA 288
OsHKT1;1-V5  226 TTCCAGAGCCAGATGTGT---------------------------------------- 243
OsHKT1;1-V6  301 TTCCAGAGCCAGATGTGTGGCAAGTTCTGTCAAACAATCTTACAGTTTTCTGGTTTGCAA 360
OsHKT1;1-V7  266 TTCCAGAGCCAGATGTGT---------------------------------------- 283
OsHKT1;1-V8  227 TTCCAGAGCCAGATGTGT---------------------------------------- 244
                                                    M1
OsHKT1;1-FL  292 AAGTAACCCTTTGGTAGTTCAGCTCGTTTACTTTGTGATAATCTCATTTGCTGGTTTCCT 351
OsHKT1;1-V1  245 ---------------------------------------------------------- 245
OsHKT1;1-V2  248 ---------------------------------------------------------- 248
OsHKT1;1-V3  292 AAGTAACCCTTTGGTAGTTCAGCTCGTTTACTTTGTGATAATCTCATTTGCTGGTTTCCT 351
OsHKT1;1-V4  289 AAGTAACCCTTTGGTAGTTCAGCTCGTTTACTTTGTGATAATCTCATTTGCTGGTTTCCT 348
OsHKT1;1-V5  243 ---------------------------------------------------------- 243
OsHKT1;1-V6  361 AAGTAACCCTTTGGTAGTTCAGCTCGTTTACTTTGTGATAATCTCATTTGCTGGTTTCCT 420
OsHKT1;1-V7  283 ---------------------------------------------------------- 283
OsHKT1;1-V8  244 ---------------------------------------------------------- 244

OsHKT1;1-FL  352 TGCTCTGAAGAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 411
OsHKT1;1-V1  246 ---------GAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 296
OsHKT1;1-V2  249 ----------AATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 298
OsHKT1;1-V3  352 TGCTCTGAAGAATCTCAAGCCCCAGGGTAAGCCGGGTCCAAAGGATTTGGACCTGTTGTT 411
OsHKT1;1-V4  349 TGCTCTGAAGAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 408
OsHKT1;1-V5  244 ---------GAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 294
OsHKT1;1-V6  421 TGCTCTGAAGAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 480
OsHKT1;1-V7  284 ---------GAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 334
OsHKT1;1-V8  245 ---------GAATCTCAAGCCCCAGGGTAAGCCAGGTCCAAAGGATTTGGACCTGTTGTT 295

OsHKT1;1-FL  412 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 471
OsHKT1;1-V1  297 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 356
OsHKT1;1-V2  299 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 358
OsHKT1;1-V3  412 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 471
OsHKT1;1-V4  409 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 468
OsHKT1;1-V5  295 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 354
OsHKT1;1-V6  481 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 540
OsHKT1;1-V7  335 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 394
OsHKT1;1-V8  296 CACCTCTGTGTCTACACTTACTGTCTCGAGCATGGCAACAGTAGAGATGGAAGACTTATC 355
                                                    M2
OsHKT1;1-FL  472 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 531
OsHKT1;1-V1  357 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 416
OsHKT1;1-V2  359 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 418
OsHKT1;1-V3  472 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 531
OsHKT1;1-V4  469 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 528
OsHKT1;1-V5  355 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 414
OsHKT1;1-V6  541 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 600
OsHKT1;1-V7  395 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 454
OsHKT1;1-V8  356 TGACAGGCAACTCTGGGTTCTGATCCTTCTGATGCTAATGGGAGGAGAGGTGTTCACATC 415

OsHKT1;1-FL  532 AATGCTAGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 591
OsHKT1;1-V1  417 AATGCTCGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 476
OsHKT1;1-V2  419 AATGCTAGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 478
OsHKT1;1-V3  532 AATGCTAGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 591
OsHKT1;1-V4  529 AATGCTAGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 588
OsHKT1;1-V5  415 AATGCTAGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 474
OsHKT1;1-V6  601 AATGCTAGGGCTCTACTTCAACA---------------------------------- 623
OsHKT1;1-V7  455 AATGCTAGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 514
OsHKT1;1-V8  416 AATGCTAGGGCTCTACTTCAACAATGCCAATGCCAACAGAAATGAGAACAGCCAGAGAAG 475

OsHKT1;1-FL  592 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 651
OsHKT1;1-V1  477 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 536
OsHKT1;1-V2  479 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 538
OsHKT1;1-V3  592 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 651
OsHKT1;1-V4  589 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 648
OsHKT1;1-V5  475 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 534
OsHKT1;1-V6  623 ---------------------------------------------------------- 623
OsHKT1;1-V7  515 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 574
OsHKT1;1-V8  476 TTTACCTTCAATCAGCTTGGACATTGAATCCAACAGTCCTGCAAACAATGGGGATCACAA 535
                 Start codon
OsHKT1;1-FL  652 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAGGTACAGCAAAACAA 711
OsHKT1;1-V1  537 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAGGTACAGCAAAACAA 596
OsHKT1;1-V2  539 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTCGCAAAAC----------------- 581
OsHKT1;1-V3  652 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAGATGCAAGAAA---- 707
OsHKT1;1-V4  649 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAGGTAC---------- 698
OsHKT1;1-V5  535 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAGGTAC --------- 580
OsHKT1;1-V6  623 ----------------------------------------------------------- 623
OsHKT1;1-V7  575 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTCGCAAAACCAG-------------- 620
OsHKT1;1-V8  536 AATTACGGAATGTGGCCAATCAGAAGAAACTATGTC------------------------ 571
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M3

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OsHKT1;1-FL   712 AAGCATAACATATAATCCTTGCGCTGTGTTGGTTCGCATAGTGACAGGTTATTTCGTAGC 771
OsHKT1;1-V1   597 AAGCATAACATATAATCCTTGCGCTGCGTTGGTTCGCATAGTGACAGGTTATTTCGTAGC 656
OsHKT1;1-V2   581 ------------------------------------------------------------ 581
OsHKT1;1-V3   707 ------------------------------------------------------------ 707
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571

OsHKT1;1-FL   772 TACTGTCATTTCCAGTTCTGTCATCATTATTATTTACTTTTGGATTGATTCAGATGCAAG 831
OsHKT1;1-V1   657 TACTGTCATTTCCAGTTCTGTCATCATTATTATTTACTTTTGGATTGATTCAGATGCAAG 716
OsHKT1;1-V2   582 ----------------------------------------------------CAGATGCAAG 591
OsHKT1;1-V3   707 ------------------------------------------------------------ 707
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571
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Stop codon M4

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OsHKT1;1-FL   832 AAATGTACTGAAAAGTAAGGAGATCAGTATGTATACCTTTTGCATCTTCACAGCAGTGTC 891
OsHKT1;1-V1   717 AAATGTACTGAAAAGTAAGGAGATCAGTATGTATACCTTTTGCATCTTCACAGCAGTGTC 776
OsHKT1;1-V2   592 AAATGTACTGAAAAGTAAGGAGATCAGTATGTATACCTTTTGCATCTTCACAGCAGTGTC 651
OsHKT1;1-V3   708 ---TGTACTGAAAAGTAAGGAGATCAGTATGTATACCTTTTGCATCTTCACAGCAGTGTC 764
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571

OsHKT1;1-FL   892 CTCGTTCGCAAACTGTGGCTTCACGCCACTAAATAGTAACATGCAACCCTTCAGAAAGAA 951
OsHKT1;1-V1   777 CTCGTTCGCAAACTGTGGCTTCACGCCACTAAATAGTAACATGCAACCCTTCAGAAAGAA 836
OsHKT1;1-V2   652 CTCGTTCGCAAACTGTGGCTTCACACCACTAAATAGTAACATGCAACTCTTCAGAAAGAA 711
OsHKT1;1-V3   765 CTCGTTCGCAAACTGTGGCTTCACGCCACTAAATAGTAACATGCAACCCTTCAGAAAGAA 824
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571
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M5

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OsHKT1;1-FL   952 CTGGGTCCTTTTGCTCCTAGTGATCCCGCAGATTCTAGCAGGCAATACCTTGTTTTCACC 1011
OsHKT1;1-V1   837 CTGGGTCCTTTTGCTCCTAGTGATCCCGCAGATTCTAGCAGGCAATACCTTGTTTTCACC 896
OsHKT1;1-V2   712 CTGGGTCCTTCTGCTCCTAGTGATCCCGCACATTCTAGCAGGCAATACCTTGTTTTCACC 771
OsHKT1;1-V3   825 CTGGGTCCTTTTGCTCCTAGTGATCCCGCAGATTCTAGCAGGCAATACCTTGTTTTCACC 884
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571

OsHKT1;1-FL  1012 ACTCTTGCGGCTATGCGTATGGGTTTTGGGGAAGGTCAGTGGAAAAGCAGAGTATGCTTA 1071
OsHKT1;1-V1   897 ACTCTTGCGGCTATGCGTATGGGTTTTGGGGAAGGTCAGTGGAAAAGCAGAGTATGCTTA 956
OsHKT1;1-V2   772 ACTCTTGCGGCTATGCGTATGGGTTTTGGGGAAGGTCAGTGGAAAAGCAGAGTATGCTTA 831
OsHKT1;1-V3   885 ACTCTTGCGGCTATGCGTATGGGTTTTGGGGAAGGTCAGTGGAAAAGCAGAGTATGCTTA 944
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571

OsHKT1;1-FL  1072 CATCCTTCAGCATCCTGGGGAGACTGGCTACAAACATTTGCATGTGAGGAGAAATTCTGT 1131
OsHKT1;1-V1   957 CATCCTTCAGCATCCTGGGGAGACTGGCTACAAACATTTGCATGTGAGGAGAAATTCTGT 1016
OsHKT1;1-V2   832 CATCCTTCAGCATCCTGGGGAGACTGGCTACAAACATTTGCATGTGAGGAGAAATTCTGT 891
OsHKT1;1-V3   945 CATCCTTCAGCATCCTGGGGAGACTG---------------------------------- 970
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571
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M6

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OsHKT1;1-FL  1132 TTACATTGTTCTGAGTGTTACTGGACTGATTCTACTGCAAGTAATGTTTATTTGCTCGTT 1191
OsHKT1;1-V1  1017 TTACATCGTTCTGAGTGTTACTGGACTGATTCTACTGCAAGTAATGTTTATTTGCTCGTT 1076
OsHKT1;1-V2   892 TTACATTGTTCTGAGTGTTACTGGACTGATTCTACCGCAAGTAATGTTTATTTGCTCGTT 951
OsHKT1;1-V3   970 ------------------------------------------------------------ 970
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571

OsHKT1;1-FL  1192 TGAGTGGAACTCAGAGAGCTTAGAGGGAATGAATTGGTTACAGAAATTGGTAGGATTATT 1251
OsHKT1;1-V1  1077 TGAGTGGAACTCAGAGAGCTTAGAGGGAATGAATTGGTTACAGAAATTGGTAGGATTATT 1136
OsHKT1;1-V2   952 TGAGTGGAACTCAGAGAGCTTAGAGGGAATGAATTGGTTACAGAAATTGGTAGGATTATT 1011
OsHKT1;1-V3   970 ------------------------------------------------------------ 970
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571

OsHKT1;1-FL  1252 ATTCCAGAGTGTTAATACAAGACAAGCCGGTGAATCTATCCTTGATATATCAACACTTTC 1311
OsHKT1;1-V1  1137 ATTCCAGAGTGTTAATACAAGACAAGCCGGTGAATCTATCCTTGATATATCAACACTTTC 1196
OsHKT1;1-V2  1012 ATTCCAGAGTGTTAATACAAGACAAGCCGGTGAATCTATCCTTGATATATCAACACTTTC 1071
OsHKT1;1-V3   970 ------------------------------------------------------------ 970
OsHKT1;1-V4   698 ------------------------------------------------------------ 698
OsHKT1;1-V5   580 ------------------------------------------------------------ 580
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571
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M7

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OsHKT1;1-FL  1312 TCCATCAACTCTGTTGCTATTTGCAGTCGTCATGTACCTTCCTTCCGATGCTTCATTTCT 1371
OsHKT1;1-V1  1197 TCCATCAACTCTGTTGCTATTTGCAGTCGTCATGTACCTTCCTTCCGATGCTTCATTTCT 1256
OsHKT1;1-V2  1072 TCCATCAACTCTGTTGCTATTTGCAGTCGTCATGTACCTTCCTTCCGATGCTTCATTTCT 1131
OsHKT1;1-V3   971 ---------------GCTACAAACATTTG-CATGTACCTTCCTTCCGATGCTTCATTTCT 1014
OsHKT1;1-V4   699 ------------------------------------CTTCCTTCCGATGCTTCATTTCT 721
OsHKT1;1-V5   581 ----------------------------------- CTTCCTTCCGATGCTTCATTTCT 607
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571
```

Stop codon

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OsHKT1;1-FL  1372 CACTGCCAATGCTGATAACCAGCCCTTGACAGATAAAAAGACAAACTCGATTAGCAGAGC 1431
OsHKT1;1-V1  1257 CACTGCCAATGCTGATAACCAGCCCTTGACAGATAAAAAGACAAACTCGATTAGCAGAGC 1316
OsHKT1;1-V2  1132 CACTGCCAATGCTGATAACCAGCCCTTGACAGATAAAAAGACAAACTCGATTAGCAGAGC 1191
OsHKT1;1-V3  1015 CACTGCCAATGCTGATAACCAGCCCTTGACAGATAAAAAGACAAACTCGATTAGCAGAGC 1074
OsHKT1;1-V4   722 CACTGCCAATGCTGATAACCAGCCCTTGACAGATAAAAAGACAAACTCGATTAGCAGAGC 781
OsHKT1;1-V5   608 CACTGCCAATGCTGATAACCAGCCCTTGACAGATAAAAAGACAAACTCGATTAGCAGAGC 667
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571
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M8

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OsHKT1;1-FL  1432 ACTGTGGAGGAATTTTACCGTTAACAAGCTTTCTTGTTTAGCAATGTTCACATTCCTGGC 1491
OsHKT1;1-V1  1317 ACTGTGGAGGAATTTTACCGTTAACAAGCCTTCTTGTTTAGCAATGTTCACATTCCTGGC 1376
OsHKT1;1-V2  1192 ACTGTGGAGGAATTTTACCGTTAACAAGCTTTCTTGTTTAGCAATGTTCACATTCCTGGC 1251
OsHKT1;1-V3  1075 ACTGTGGAGGAATTTTACCGTTAACAAGCTTTCTTGTTTAGCAATGTTCACATTCCTGGC 1134
OsHKT1;1-V4   782 ACTGTGGAGGAATTTTACCGTTAACAAGCTTTCTTGTTTAGCAATGTTCACATTCCTGGC 841
OsHKT1;1-V5   668 ACTGTGGAGGAATTTTACCGTTAACAAGCTTTCTTGTTTAGCAATGTTCACATTCCTGGC 727
OsHKT1;1-V6   623 ------------------------------------------------------------ 623
OsHKT1;1-V7   620 ------------------------------------------------------------ 620
OsHKT1;1-V8   571 ------------------------------------------------------------ 571
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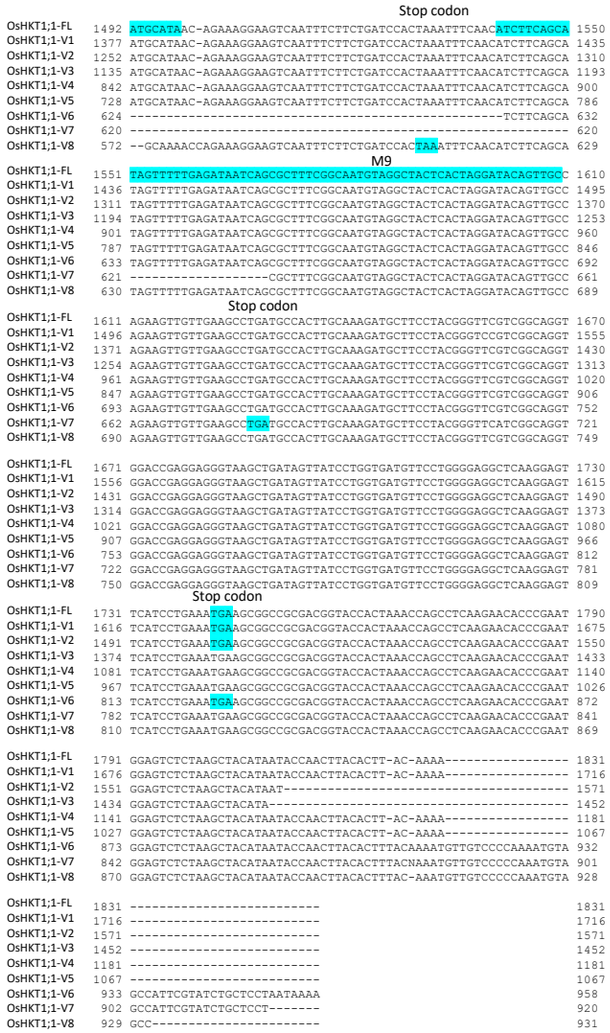
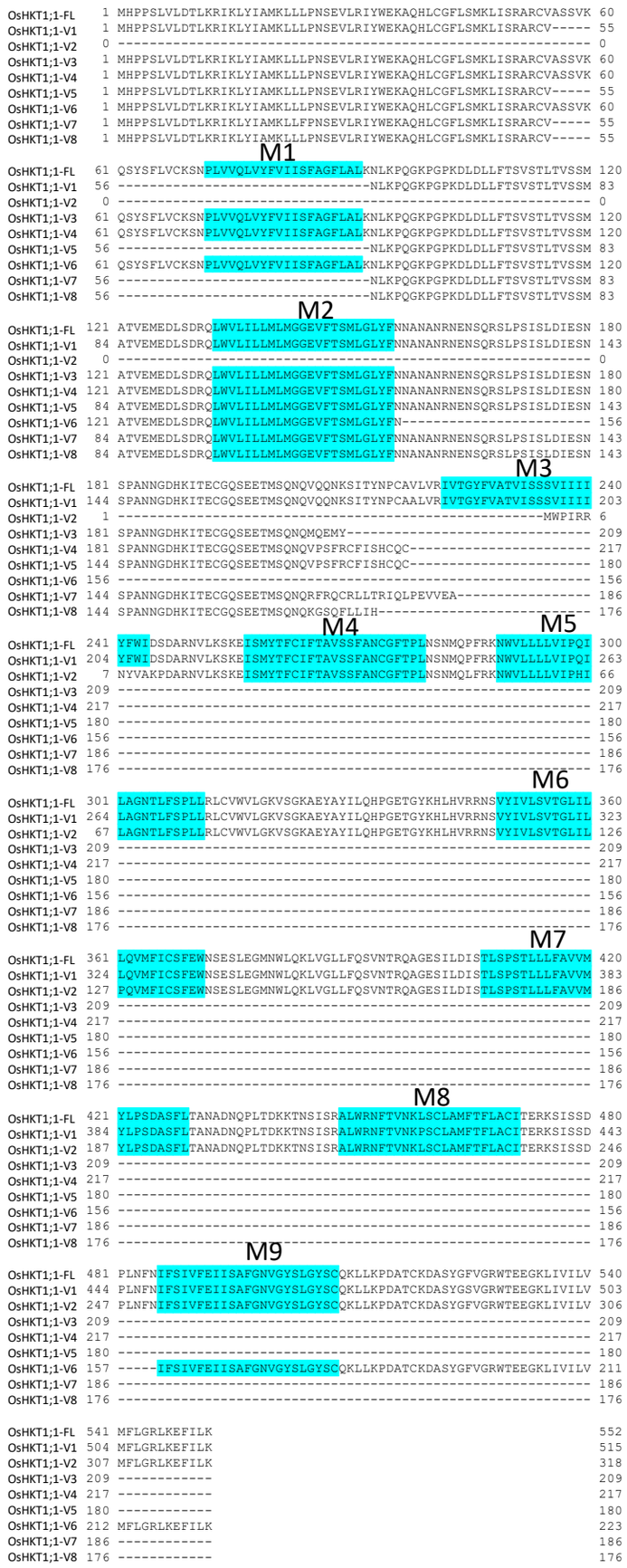
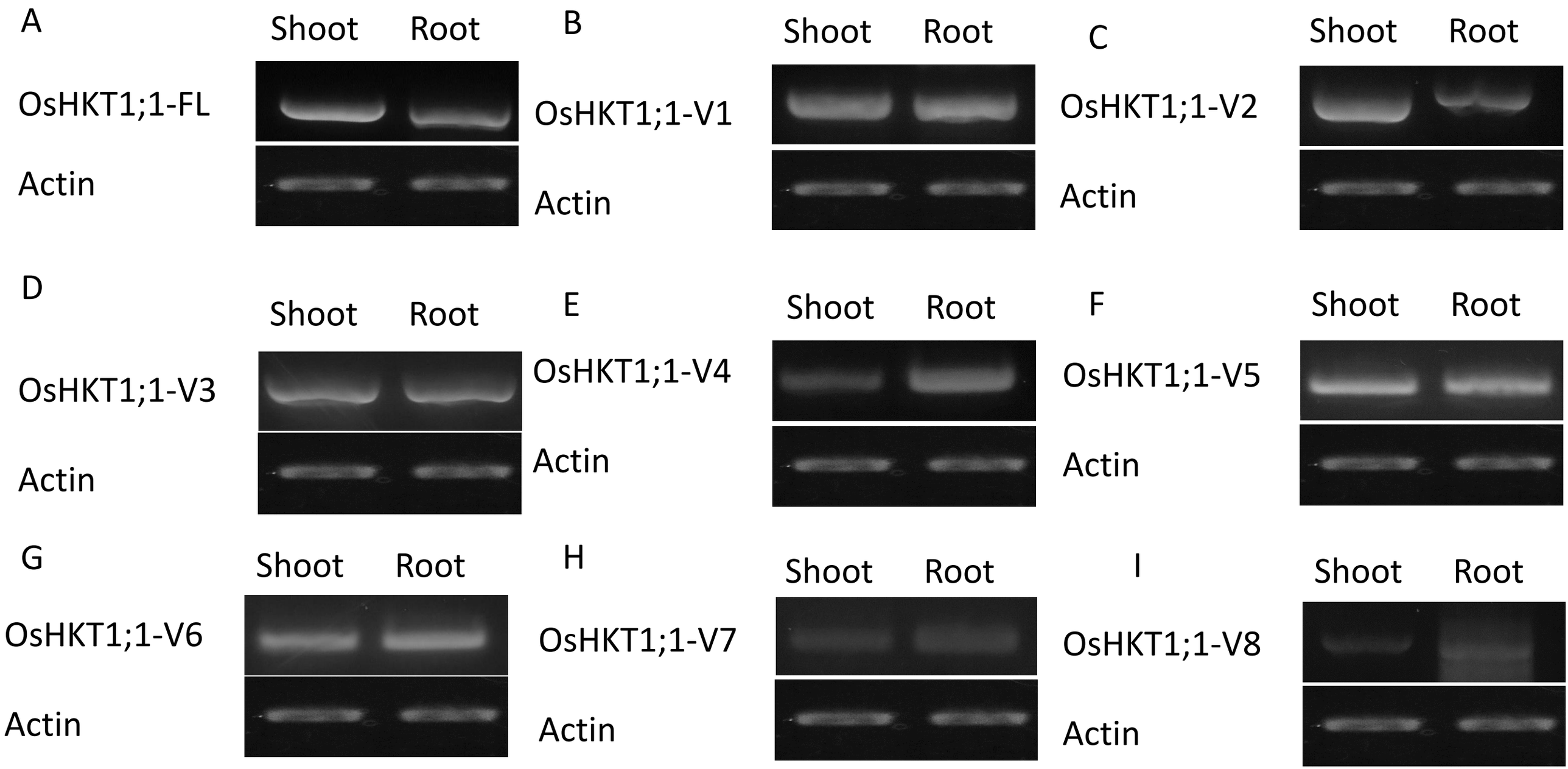


Supplementary Figure S3.
Nucleotide sequence alignment of OsHKT1;1-FL and its eight variant using GENETYX ver. 13. Presumed membrane-spanning regions of OsHKT1;1-FL, and positions of start and stop codon for the full-length and variants are indicated.



Supplementary Figure S4.
Protein sequence alignment of OsHKT1;1-FL and its eight variant using GENETYX ver. 13. Presumed membrane-spanning regions of OsHKT1;1-FL and its eight variants are indicated.



Supplementary Figure S5.
Expression analyzed with RT-PCR. OsHKT1;1-FL (A), OsHKT1;1-V1 (B), OsHKT1;1-V2 (C), OsHKT1;1-V3 (D), OsHKT1;1-V4 (E), OsHKT1;1-V5 (F), OsHKT1;1-V6 (G), OsHKT1;1-V7 (H), and OsHKT1;1-V8 (I) in "Pokkali" plants. Actin was used as an internal control.

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OsHKT1;1-FL              1 MHPPSLVLDTLKRIKLYIAMKLLLPNSEVLRIYWEKAQHLCGFLSMKLISRARCVASSVK 60
OsHKT1;1-V1              1 MHPPSLVLDTLKRIKLYIAMKLLLPNSEVLRIYWEKAQHLCGFLSMKLISRARCV----- 55
OsHKT1;1-FL (ΔA56-K92)   1 MHPPSLVLDTLKRIKLYIAMKLLLPNSEVLRIYWEKAQHLCGFLSMKLISRARCV----- 55

OsHKT1;1-FL             61 QSYSFLVCKSNPLVVQLVYFVIISFAGFLALKNLKPQGKPGPKDLDLLFTSVSTLTVSSM 120
OsHKT1;1-V1             56 --------------------------------NLKPQGKPGPKDLDLLFTSVSTLTVSSM 83
OsHKT1;1-FL (ΔA56-K92)  56 --------------------------------NLKPQGKPGPKDLDLLFTSVSTLTVSSM 83

OsHKT1;1-FL            121 ATVEMEDLSDRQLWVLILLMLMGGEVFTSMLGLYFNNANANRNENSQRSLPSISLDIESN 180
OsHKT1;1-V1             84 ATVEMEDLSDRQLWVLILLMLMGGEVFTSMLGLYFNNANANRNENSQRSLPSISLDIESN 143
OsHKT1;1-FL (ΔA56-K92)  84 ATVEMEDLSDRQLWVLILLMLMGGEVFTSMLGLYFNNANANRNENSQRSLPSISLDIESN 143

OsHKT1;1-FL            181 SPANNGDHKITECGQSEETMSQNQVQQNKSITYNPCAVLVRIVTGYFVATVISSSVIIII 240
OsHKT1;1-V1            144 SPANNGDHKITECGQSEETMSQNQVQQNKSITYNPCAALVRIVTGYFVATVISSSVIIII 203
OsHKT1;1-FL (ΔA56-K92) 144 SPANNGDHKITECGQSEETMSQNQVQQNKSITYNPCAVLVRIVTGYFVATVISSSVIIII 203

OsHKT1;1-FL            241 YFWIDSDARNVLKSKEISMYTFCIFTAVSSFANCGFTPLNSNMQPFRKNWVLLLLVIPQI 300
OsHKT1;1-V1            204 YFWIDSDARNVLKSKEISMYTFCIFTAVSSFANCGFTPLNSNMQPFRKNWVLLLLVIPQI 263
OsHKT1;1-FL (ΔA56-K92) 204 YFWIDSDARNVLKSKEISMYTFCIFTAVSSFANCGFTPLNSNMQPFRKNWVLLLLVIPQI 263

OsHKT1;1-FL            301 LAGNTLFSPLLRLCVWVLGKVSGKAEYAYILQHPGETGYKHLHVRRNSVYIVLSVTGLIL 360
OsHKT1;1-V1            264 LAGNTLFSPLLRLCVWVLGKVSGKAEYAYILQHPGETGYKHLHVRRNSVYIVLSVTGLIL 323
OsHKT1;1-FL (ΔA56-K92) 264 LAGNTLFSPLLRLCVWVLGKVSGKAEYAYILQHPGETGYKHLHVRRNSVYIVLSVTGLIL 323

OsHKT1;1-FL            361 LQVMFICSFEWNSESLEGMNWLQKLVGLLFQSVNTRQAGESILDISTLSPSTLLLFAVVM 420
OsHKT1;1-V1            324 LQVMFICSFEWNSESLEGMNWLQKLVGLLFQSVNTRQAGESILDISTLSPSTLLLFAVVM 383
OsHKT1;1-FL (ΔA56-K92) 324 LQVMFICSFEWNSESLEGMNWLQKLVGLLFQSVNTRQAGESILDISTLSPSTLLLFAVVM 383

OsHKT1;1-FL            421 YLPSDASFLTANADNQPLTDKKTNSISRALWRNFTVNKLSCLAMFTFLACITERKSISSD 480
OsHKT1;1-V1            384 YLPSDASFLTANADNQPLTDKKTNSISRALWRNFTVNKPSCLAMFTFLACITERKSISSD 443
OsHKT1;1-FL (ΔA56-K92) 384 YLPSDASFLTANADNQPLTDKKTNSISRALWRNFTVNKLSCLAMFTFLACITERKSISSD 443

OsHKT1;1-FL            481 PLNFNIFSIVFEIISAFGNVGYSLGYSCQKLLKPDATCKDASYGFVGRWTEEGKLIVILV 540
OsHKT1;1-V1            444 PLNFNIFSIVFEIISAFGNVGYSLGYSCQKLLKPDATCKDASYGSVGRWTEEGKLIVILV 503
OsHKT1;1-FL (ΔA56-K92) 444 PLNFNIFSIVFEIISAFGNVGYSLGYSCQKLLKPDATCKDASYGFVGRWTEEGKLIVILV 503

OsHKT1;1-FL            541 MFLGRLKEFILK                                             552
OsHKT1;1-V1            504 MFLGRLKEFILK                                             515
OsHKT1;1-FL (ΔA56-K92) 504 MFLGRLKEFILK                                             515
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Supplement Figure S6.
Amino acid comparison among OsHKT1;1-FL, native OsHKT1;1-V1 and OsHKT1;1-FL (ΔA56-K92). GENETYX ver. 13 was used for exon-intron analysis.