

	Loop D
AtNIP1;2	TDNRAIG203
AtNIP4;1	TDNRAVG187
AtNIP4;2	TDSRATG187
GmNod26	TDNRAVG182
MtNIP2	TDNRAIG182
OsNIP1;1	TDNRAIG192
OsNIP1;2	TDNRAIG214
OsNIP1;3	TDNRAIG198
OsNIP1;4	TDDQAVG200
Ps Nod26	TDNRAIG183
VuNIP1;1	TDNRAIG183
VvPnNIP1;1	TDNRAIG192
→ VvTnNIP1;1	TDNRAIG192
VvPnNIP3;1	VVNKIYG186
ZmNIP1;1	TDNRAIG188
AnNIP1;1	TDTRAVG217
AtNIP5;1	TDTRAVG221
AtNIP6;1	TDTRAVG223
AtNIP7;1	CDFVQLG189
OsNIP3;2	TDPNNAVK238
OsNIP3;3	TDPNNAVK211
OsNIP4;1	TDGTAGK200
VvPnNIP5;1	TDTRAVG215
→ VvTnNIP5;1	TDTRAVG215
VvPnNIP6;1	TDTRAVG224
→ VvTnNIP6;1M	TDTRAVG224
→ VvTnNIP6;1	TDTRAVG224
LjNIP6;1	TDTRAVG226
ZmNIP3;1	TDTRAVG219
CpNIP2;1	TDTKAVG191
CaNIP2;1	TDPKAIG175
OsNIP2;1	TDTRAVG192
OsNIP2;2	TDSRAVG195
VvPnNIP2;1	TDTKAIG191
VvTnNIP2;1	TDTKAIG191
VvPnNIP7;1	SQPQSVS205
ZmNIP2;1	TDTRAVG190
ZmNIP2;2	TDSRAVG195
ZmNIP2;3	TDSRAVG198

Figure S3: Putative pH-sensitive sites at the cytoplasmic loop D for NIPs gating. Sequences obtained in the present study are marked with an arrow. The alignment is showing the absence of highly conserved His residue for pH-sensitivity in loop D of all aligned NIPs sequences. Whereas, the consecutive presence of acidic amino acids (Asp and Arg) was observed, which possibly present the internal pH-sensors at the cytoplasmic loop.