

Table S1: Discarded sequences from JGI list of *Populus* MIPs

JGI Accession	Length	Reason(s) for exclusion
562841	110	small and missing conserved loops
567478	59	small and missing conserved loops
579650	132	small (has loopE similar to those in PtXIPs)
587423	153	small and missing conserved loops
680648	196	partial sequence (identical to PtTIP2;1)
590872	234	belongs to the endophyte bacteria <i>Ralstonia metallidurans</i>
206485	224	Features do not correspond to that of aquaporin
263239	138	partial sequence
417298	73	partial sequence

Table S2: Discarded fungi MIP sequences from TBLASTN search of fungi genomic sequences

NCBI Accession code	Length in predicted sequence	Organism	Reason(s) for exclusion
AACM02000152	302	<i>Gibberella zeae</i>	Missing H2 andLB
AAIH02000095	282	<i>Aspergillus flavus</i>	Missing H5 andLE
AAJN01000140, XP_001214173	279	<i>Aspergillus terreus</i>	Missing LE andH6
AAIH02000016	290	<i>Aspergillus flavus</i>	Missing LE andH6
AAIH02000540	305	<i>Aspergillus flavus</i>	Missing LE andH6