${\bf Additional\ file\ 9\ The\ co-expression\ regulatory\ MAPK\ cascades\ genes.}$

treatments					(Co-express	sion regul	atory MA	PK casca	ades genes*
		MAPKKK5	MAPKKK27	MAPKKK35	MAPKKK2	MAPKKK23	MAPKKK13	MAPKKK48	MAPKKK60	
		MAPKKK21	MAPKKK39	MAPKKK37	MAPKKK3	MAPKKK25	MAPKKK14	MAPKKK66		
		MAPKKK53	MAPKKK43	MAPKKK49	MAPKKK12	MAPKKK28	MAPKKK30	MAPKKK71		
		MAPKKK55		MAPKKK70	MAPKKK15	MAPKKK31	MAPKKK32	MAPKKK72		
		MAPKKK58		MAPKKK75	MAPKKK16	MAPKKK34	MAPKKK64			
	MAPKKKs	MAPKKK68			MAPKKK19	MAPKKK41				
	WATKKS	MAPKKK69			MAPKKK20	MAPKKK56				
					MAPKKK26	MAPKKK62				
					MAPKKK29	MAPKKK65				
Biotic					MAPKKK46					
					MAPKKK67					
					MAPKKK74					
		MKK10-5		MKK10-2	MKK3-1	MKK5	MKK1	MKK10-3		
	MAPKKs				MKK3-2		MKK3-3			
					MKK6					
			MPK14	MPK20-1			MPK4		MPK3	
	MAPKs		MPK17		MPK20-4		MPK11		MPK6	
						MPK20-5	MPK21-1		MPK7-2	
									MPK16	
			MAPKKK52							MAPKKK50
		MAPKKK5		MAPKKK72		MAPKKK/1	MAPKKK48			MAPKKK68
		MAPKKK6			MAPKKK11				MAPKKK54	
Abiotic	MAPKKKs	MAPKKK12						MAPKKK33		
		MAPKKK13						MAPKKK65	MAPKKK/3	
		MAPKKK15								
		MAPKKK17								
		MAPKKK23								

		MAPKKK28												
		MAPKKK38												
		MAPKKK43												
		MAPKKK46												
	MAPKKs			MKK10-5		MKK5		MKK1	MKK6					
		MPK16	MPK3		MPK4		MPK7-2	MPK11	MPK20-4	MPK7-1				
	MAPKs		MPK17					MPK20-1		MPK20-2				
										MPK20-5				
		MAPKKK1	MAPKKK12	MAPKKK14	MAPKKK6	MAPKKK11	MAPKKK18	MAPKKK26	MAPKKK30	MAPKKK5	MAPKKK34	MAPKKK27	MAPKKK19	MAPKKK21
		MAPKKK2	MAPKKK15	MAPKKK23	MAPKKK17	MAPKKK24	MAPKKK43	MAPKKK50	MAPKKK66	MAPKKK44			MAPKKK62	MAPKKK51
		MAPKKK7		MAPKKK28	MAPKKK65	MAPKKK25			MAPKKK71	MAPKKK49			MAPKKK64	MAPKKK53
		MAPKKK8		MAPKKK45		MAPKKK33							MAPKKK70	MAPKKK63
	MAPKKKs	MAPKKK9		MAPKKK48										MAPKKK72
		MAPKKK10		MAPKKK56										
		MAPKKK13		MAPKKK57										
		MAPKKK16		MAPKKK74										
		MAPKKK20												
		MAPKKK22												
Hormone		MAPKKK29												
		MAPKKK31												
		MAPKKK32												
		MAPKKK38												
		MAPKKK39												
		MAPKKK47												
		MAPKKK68												
		MAPKKK75	MVV10.2	MVV10.1		MVV1		MVV6	MVVA		MVV10 5	MVV2 1		MKK10.2
	MAPKKs		MKK10-3	MKK10-1		MKK1		MKK6	MKK4 MKK5		MKK10-5	MKK3-1		MKK10-2
	MAPKs	MPK4			MPK7-1	MPK11	MPK7-2	MPK16	MPK6	MPK3		MKK3-2 MPK21-1	MPK17	
	IVIZAT INS	IVII IX-			WII IX /-1	WII IXII	WII IX /-Z	WILKIU	MITAU	WII KJ		WII IXZ 1-1	WII IXI7	

					MPK20-5	MPK14		MPK20-1			
						MPK20-4		MPK20-2			
								MPK20-3			
			MAPKKK3	MAPKKK10	MAPKKK25	MAPKKK28	MAPKKK1	MAPKKK16	MAPKKK14	MAPKKK60	
			MAPKKK8	MAPKKK19	MAPKKK57	MAPKKK42	MAPKKK22	MAPKKK27	MAPKKK44		
			MAPKKK11	MAPKKK20	MAPKKK63		MAPKKK29	MAPKKK31			
			MAPKKK13	MAPKKK32			MAPKKK30	MAPKKK4			
			MAPKKK18	MAPKKK35			MAPKKK34	MAPKKK73			
			MAPKKK26	MAPKKK37			MAPKKK39				
	MAPKKKs		MAPKKK36	MAPKKK45			MAPKKK40				
			MAPKKK48	MAPKKK51			MAPKKK41				
			MAPKKK50	MAPKKK52			MAPKKK49				
			MAPKKK61	MAPKKK58			MAPKKK53				
			MAPKKK66	MAPKKK67			MAPKKK64				
Heavy Metal				MAPKKK69			MAPKKK74				
Ticavy Mictai				MAPKKK71							
				MAPKKK72							
		MKK1			MKK6	MKK5	MKK3-3	MKK4	MKK3-1	MKK10-1	
	MAPKKs						MKK10-2		MKK3-2	MKK10-3	
							MKK10-5				
		MPK4	MPK17	MPK3	MPK7-1		MPK7-2		MPK21-1		
		MPK11		MPK6	MPK20-3		MPK14				
		MPK16									
	MAPKs	MPK20-1									
		MPK20-2									
		MPK20-4									
		MPK20-5									
Tissue	MAPKKKs		MAPKKK1								
		MAPKKK10	MAPKKK22	MAPKKK12	MAPKKK6	MAPKKK11	MAPKKK23				

		MAPKKK16	MAPKKK31	MAPKKK14	MAPKKK7	MAPKKK15	MAPKKK25					
				MAPKKK19								
				MAPKKK27								
				MAPKKK34								
				MAPKKK35								
		MAPKKK75	WAI KKK04			MAPKKK36						
		WAFKK/3				MAPKKK42						
						MAPKKK46						
				WAFKKOO		MAPKKK50						
						MAPKKK63						
							MAPKKK70					
						MAPKKK74	WIAI KKK70					
					MAPKKK57	WAI KKK/4						
					MAPKKK58							
					MAPKKK61							
					MAPKKK71							
					MAPKKK72							
					MAPKKK73							
			MKK3-1	MKK1	MKK4	MKK10-3	MKK10-1					
			MKK3-3	MKK3-2	MKK5							
	MAPKKs		MKK6		MKK10-5							
			MKK10-2									
		MPK17	MPK3	MPK4	MPK7-1	MPK11						
			MPK6	MPK16		MPK20-2						
	MAPKs		MPK7-2	MPK20-1		MPK20-5						
			MPK14	MPK20-3		MPK21-1						
			MPK20-4									
		MAPKKK23	MAPKKK57		MAPKKK35		MAPKKK24	MAPKKK26	MAPKKK21	MAPKKK63	MAPKKK6	
11	MAPKKKs											

		MAPKKK28	MAPKKK71		MAPKKK39		MAPKKK50						
		MAPKKK48			MAPKKK49								
		MAPKKK56											
			MKK5	MKK6		MKK3-1		MKK1	MKK10-5	MKK10-2			
	MAPKKs					MKK3-2		MKK10-3					
						MKK3-3							
		MPK4		MPK6	MPK3	MPK7-2	MPK7-1	MPK11			MPK20-1		
	MAPKs			MPK16	MPK17	MPK21-1	MPK20-2						
	WIZITKS			MPK20-3			MPK20-5						
				MPK20-4									
		MAPKKK2	MAPKKK24		MAPKKK43	MAPKKK14	MAPKKK20	MAPKKK26	MAPKKK53				
		MAPKKK13	MAPKKK33		MAPKKK55	MAPKKK29	MAPKKK30	MAPKKK50	MAPKKK58				
		MAPKKK15			MAPKKK57	MAPKKK34	MAPKKK36	MAPKKK66	MAPKKK69				
					MAPKKK59		MAPKKK41						
	MAPKKKs				MAPKKK60		MAPKKK45						
					MAPKKK61		MAPKKK46						
All+Tissue					MAPKKK68		MAPKKK71						
All+11ssue					MAPKKK73		MAPKKK72						
							MAPKKK74						
	MAPKKs		MKK1	MKK6	MKK10-1		MKK5	MKK4	MKK10-5				
	WIAI KKS							MKK10-3					
		MPK4	MPK7-1	MPK20-1		MPK16	MPK11						
	MAPKs		MPK20-2	MPK20-4		MPK20-3							
			MPK20-5			MPK21-1							

^{*} The same color background indicated the same group of co-expression genes in corresponding treatment, respectively. "All" means the expression levels of all kind of treatment, and "Tissue" means the tissue specific expression. MAPKKK genes were marked in blue; MAPKK genes were marked in red; and MAPK genes were marked in cyan.