Table S1. Detailed comparison of *A.thaliana* , *P.patens* and S.moellendorffii ARFs													
Proteins	MR		length	III	IV	% by frequency						length	ScanProsite
	start	end				Q	S	G	P	L	M		
ARF1	355	543	189	+	+	5.8	16.4	7.9	12.7	3.7	0.0	665	P-rich
ARF2	395	734	340	+	+	5.9	12.7	5.9	8.2	6.8	2.4	859	
ARF3	390	566	177	-	-	5.1	14.1	13	6.2	5.7	0.0	608	
ARF4	407	666	260	+	+	5.4	11.9	8.5	10	6.9	2.3	788	
ARF5	392	798	407	+	+	10.1	15.1	5.4	6.7	7.9	4.4	902	M-rich
ARF6	359	795	437	+	+	17.2	16	6.6	7.8	10.1	4.1	933	Q-rich
ARF7	359	1039	681	+	+	22.8	12.3	6.5	7.5	11	2.4	1165	Q-/S-rich
ARF8	358	706	349	+	+	14.3	11.5	8.6	8	11.8	3.7	811	Q-rich
ARF9	344	524	181	+	+	6.1	17.7	1.7	7.2	5	2.8	638	
ARF10	383	581	199	+	+	6	11.1	8	7.5	8.5	3.0	693	
ARF11	352	491	140	+	+	7.9	22.9	2.1	8.6	5.7	0.0	601	
ARF12	354	512	159	+	+	5	10.7	4.4	8.2	10.7	4.4	593	
ARF13	354	463	110	-	-	5.6	13.9	3.7	5.6	13.9	1.9	505	
ARF14	354	511	158	+	+	7	13.9	3.8	7	8.9	3.2	605	
ARF15	359	517	159	+	+	6.9	12	5	8.2	10.1	3.8	598	
ARF16	385	585	201	+	+	3.5	14.9	7.5	11.5	10	1.0	670	
ARF17	379	506	128	-	-	4.9	12.3	11.5	14.8	8.2	3.3	585	
ARF18	356	490	135	+	+	8.9	16.3	3	15.6	5.9	1.5	602	
ARF19	357	959	603	+	+	18.9	12.9	5.6	8.1	7.3	4.2	1086	Q-rich
ARF20	352	496	145	+	+	6.2	10.3	4.8	6.2	10.3	4.1	590	
ARF21	354	512	159	+	+	6.9	12	4.4	8.2	10.7	3.8	606	
ARF22	352	510	159	+	+	6.3	12	5	8.2	10.7	3.8	598	
ARF23				-	-							222	
all_Phypa_167026	537	890	354	+	+	9.6	11.3	7.3	9	11.6	5.1	1019	
all_Phypa_218828	263	648	386	+	+	7.8	15.3	7.3	8	7	5.3	782	
all_Phypa_165321	362	727	366	+	+	8.2	12.8	9	11.8	9	3.8	849	
all_Phypa_188433	373	664	292	+	+	8.2	13	7.9	10.6	8.2	2.7	786	
all_Phypa_159688	498	835	338	+	+	4.4	15.1	5.6	11.2	8.6	0.9	945	
all_Phypa_77324	651	949	299	+	+	4.7	15.1	5	11.2	9.5	0.8	1059	
all_Phypa_225990	338	539	202	+	+	4.5	14.4	6.4	12.4	8.4	1.0	642	
all_Phypa_171197	742	1026	285	+	+	4.9	11.9	4.9	11.6	9.5	2.1	1129	
all_Phypa_196920	424	639	216	-	-	7.4	12.5	6.5	10.7	9.7	1.4	715	
Phypa_50215	342	672	331	+	+	10	15.4	7	8.8	10.9	4.2	758	
Phypa_127416	348	742	395	+	+	8.9	15.2	8.6	8.9	7.1	4.6	876	
Phypa_108888	362	520	159	+	+	5.7	11.3	12	12	10.1	3.9	596	
Phypa_170581	70	717	648	+	+	14.5	13	9.3	7.7	7.7	3.9	825	Q-rich
all_Phypa_171888	180	788	609	+	+	14	12.3	9.4	9	7.7	4.8	896	Q-/P-rich
Selmo1_2_181406	351	773	423	+	+	28.6	9.9	3.3	6.9	9.2	2.6	908	Q-rich
Selmo1_2_437944	371	665	295	+	+	5.8	11.9	6.1	8.5	6.4	3.7	796	
Selmo1_2_61688	367	548	182	+	+	5	12.6	8.8	7.1	10.4	3.9	622	Q-rich
Selmo1_446535	353	663	311	+	+	11.9	10	5.1	13.8	8.7	4.2	825	Q-rich
Selmo1_422125	347	684	338	+	+	14.8	13.3	6.8	5.6	8.6	1.8	801	
Selmo1_2_81992	343	362	20	-	-							382	
Selmo1_2_51695	389	589	201	+	+	8	11.4	11.4	6	9.5	1.0	665	
Selmo1_421309	28	486	459	+	+	16.1	14.6	4.6	10.5	7.4	3.5	582	Q-/P-/H-rich
Selmo1_405646	19	560	542	+	+	9.8	13.7	10.9	7.6	7.2	3.5	643	Q-/G-/H-rich