

Supplemental Figure S6. Alignment of basic and hinge regions of 170 ZmbZIP proteins.

The ZmbZIP proteins are classified into 11 groups (A-I, S, U). Conserved amino acids are boxed in red. Amino acid numbering is according to Suckow et al [1]. and Nijhawan et al [2]. The first leucine in leucine heptad repeats is numbered +1. Some of the functional annotated bZIP proteins in maize, rice and Arabidopsis sharing similar amino acid sequences in the basic and hinge regions are also shown as reference. The different amino acid residues at -10 and -18 positions like K and I are colored.

ZmbZIP No.	PUBLISHED	BASIC REGION						HINGE	GROUP																										
		-30	-25	-20	-15	-10	-5			+1																									
AtbZIP12	DPBF4	K	T	V	E	R	R	Q	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E	L	A				
Os bZIP66	TRAB1	K	V	V	E	R	R	Q	R	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E		L			
ZmbZIP14		K	V	V	E	R	R	Q	R	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E		L			
ZmbZIP23	ZmbZIP72	K	V	V	E	R	R	R	R	R	R	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T		H	E	L	
ZmbZIP37.1		R	A	A	M	Q	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	E	R	R	K	K	A	I	A	E		L			
ZmbZIP37.2		R	A	A	M	Q	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	E	R	R	K	K	A	I	A	E		L			
ZmbZIP39		K	L	V	E	R	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E		L			
ZmbZIP46.1		K	V	V	E	R	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E		L			
ZmbZIP46.2		K	V	V	E	R	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E		L			
ZmbZIP71		R	A	V	M	Q	R	Q	K	R	M	I	K	N	R	S	A	A	S	R	S	R	D	R	K	K	A	A	L	E		E	I		
ZmbZIP73		Y	D	D	E	R	R	K	N	I	R	M	M	N	R	S	A	L	R	S	R	A	R	K	R	A	I	V	Q	E		L			
ZmbZIP75		S	G	D	D	R	R	S	I	R	M	M	N	R	S	A	L	R	S	R	A	R	K	R	A	I	V	Q	E	L					
ZmbZIP81.1		R	A	V	M	Q	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	E	R	R	K	K	A	I	A	E		L			
ZmbZIP81.2		R	A	V	M	Q	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	E	R	R	K	K	A	I	A	E		L			
ZmbZIP94		R	T	V	E	R	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E		L			
ZmbZIP95	DFL1	G	G	T	D	R	R	K	K	R	M	I	K	N	R	S	A	A	R	S	A	R	K	K	A	I	V	R	E	L					
ZmbZIP98		R	A	V	M	Q	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	E	R	R	K	K	A	I	V	A	E	L			
ZmbZIP99		K	V	V	E	R	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E	L				
ZmbZIP102		R	S	A	I	Q	R	E	K	R	M	I	K	N	R	S	A	A	R	S	R	E	R	R	K	K	A	I	A	E	L				
ZmbZIP104		K	T	V	E	R	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E	L				
ZmbZIP107		K	V	V	E	R	R	Q	K	R	M	I	K	N	R	S	A	A	R	S	R	A	R	K	K	A	I	T	H	E	L				
AtbZIP17		E	E	D	E	K	K	R	A	R	A	L	M	R	N	R	S	A	Q	L	S	R	Q	R	K	K	H	V	E	E	L	B			
Os bZIP50		D	P	M	S	K	K	K	R	F	Q	M	R	N	R	D	S	A	M	K	S	R	E	R	K	K	M	V	K	D	L				
ZmbZIP28		E	D	E	A	K	R	R	A	R	A	F	Q	V	R	N	R	S	A	H	L	S	R	Q	R	K	K	Q	Y	V	E		L		
ZmbZIP79.1		E	E	D	K	R	R	T	A	R	L	M	R	N	R	S	A	Q	L	S	R	Q	R	K	K	R	Y	V	E	L					
ZmbZIP79.2		E	E	D	K	R	R	T	A	R	L	M	R	N	R	S	A	Q	L	S	R	Q	R	K	K	R	Y	V	E	L					
ZmbZIP110.1		D	P	I	S	K	K	K	M	F	Q	M	R	N	R	D	S	A	M	K	S	R	E	R	K	K	S	Y	I	K	D	L			
ZmbZIP110.2		D	P	I	S	K	K	K	M	F	Q	M	R	N	R	D	S	A	M	K	S	R	E	R	K	K	S	Y	I	K	D	L			
AtbZIP9	BZO2H2	P	N	D	L	K	R	I	F	R	F	M	S	N	R	S	A	S	A	R	S	R	R	K	K	Q	E	Y	L	V	D	L	C		
Os bZIP33	REB	P	A	D	Q	L	Q	R	F	F	K	C	S	N	R	S	A	R	S	R	S	R	K	K	A	A	H	L	N	E	L				
ZmbZIP9.1		P	A	N	A	K	M	R	F	M	V	S	N	R	S	A	R	S	R	K	R	K	Q	A	H	L	T	D	L						
ZmbZIP9.2		P	A	N	A	K	M	R	F	M	V	S	N	R	S	A	R	S	R	K	R	K	Q	A	H	L	T	D	L						
ZmbZIP9.3		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---
ZmbZIP9.4		P	A	N	A	K	M	R	F	M	V	S	N	R	S	A	R	S	R	K	R	K	Q	A	H	L	T	D	L						
ZmbZIP16.1		P	V	Q	H	L	Q	R	F	K	C	S	N	R	S	A	R	S	R	S	R	K	A	A	H	L	N	E	L						
ZmbZIP16.2		P	V	Q	H	L	Q	R	F	K	C	S	N	R	S	A	R	S	R	S	R	K	A	A	H	L	N	E	L						
ZmbZIP17	OHP1	P	V	Q	R	L	Q	R	F	K	C	S	N	R	S	A	R	S	R	S	R	K	A	A	H	L	N	E	L						
ZmbZIP60.1	OHP2	P	V	Q	R	Q	R	F	K	C	S	N	R	S	A	R	S	R	S	R	K	A	A	H	L	N	E	L							
ZmbZIP60.2		P	V	Q	R	Q	R	F	K	C	S	N	R	S	A	R	S	R	S	R	K	A	A	H	L	N	E	L							
ZmbZIP65.1		P	Q	D	V	K	R	M	R	F	M	V	S	N	R	S	A	R	S	R	K	Q	A	H	L	A	D	L							
ZmbZIP65.2		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---
ZmbZIP85.1	Opaque2	P	T	E	E	R	V	R	K	R	K	E	S	N	R	S	A	R	S	F	Y	R	K	A	A	H	L	K	E	L					
ZmbZIP85.2		P	T	E	E	R	V	R	K	R	K	E	S	N	R	S	A	R	S	F	Y	R	K	A	A	H	L	K	E	L					
ZmbZIP85.3		P	T	E	E	R	V	R	K	R	K	E	S	N	R	S	A	R	S	F	Y	R	K	A	A	H	L	K	E	L					
ZmbZIP112.1		S	I	E	T	K	R	I	R	M	V	S	N	R	S	A	R	S	F	R	K	Q	A	C	L	S	D	L							
ZmbZIP112.2		S	I	E	T	K	R	I	R	M	V	S	N	R	S	A	R	S	F	R	K	Q	A	C	L	S	D	L							
AtbZIP20	AHBP-1b/TGA2	K	M	D	Q	K	T	L	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	V	Q	L	D				
Os bZIP11		S	V	D	A	K	T	E	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	V	Q	N		L			
ZmbZIP4		P	M	D	Q	K	V	L	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Y	Q		L			
ZmbZIP18.1		E	R	V	T	V	M	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Y	Q	L					
ZmbZIP18.2		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---	---
ZmbZIP18.3		R	P	P	E	R	V	M	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Y	Q		L			
ZmbZIP25		E	R	D	P	K	T	L	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Y	Q		L			
ZmbZIP38.1	LG2	L	V	D	A	K	T	E	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Y	Q		L			
ZmbZIP38.2		L	V	D	A	K	T	E	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Y	Q		L			
ZmbZIP40.1	OBF3.1	K	L	D	Q	K	T	L	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Q	N		L			
ZmbZIP40.2		K	L	D	Q	K	T	L	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Q	N		L			
ZmbZIP48		T	V	H	I	S	H	G	A	A	Y	N	R	E	A	A	R	K	S	L	I	R	K	K	A	I	Y	Q	L						
ZmbZIP50		A	L	D	P	K	V	I	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Y	Q		L			
ZmbZIP68		T	S	D	A	K	T	L	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	I	R	K	K	A	I	Q	N		L			
ZmbZIP77.1		P	R	D	H	K	A	Q	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	M	R	K	K	A	I	V	E		L			
ZmbZIP77.2		P	R	D	H	K	A	Q	R	R	L	A	Q	N	R	E	A	A	R	K	S	R	M	R	K	K	A	I	V	E	L				
ZmbZIP77.3		P	R	D	H	K	A																												