

Supplementary Material Table 2. AtbHLH proteins predicted to be Non-DNA-binders.

Amino acid sequences of the bHLH domains of the Arabidopsis proteins predicted to lack capacity to bind DNA, based on the absence of amino acid E13 and/or R16, and the presence of few basic residues in the first 17 positions (See Functional Categories Section). EN 129 has the pair E/R but only 3 basic residues in the first 17 positions, and for this reason was included as part of this category. Proteins are listed according to the Entry Number assigned, and their AtbHLH number and PID number is also provided to identify them. Positions within the bHLH domain are numbered at the top of the figure, below the schematic that indicates the basic, helix and loop regions of the domain.

EN	AtbHLH Number	PID Number	BASIC		HELIX		LOOP	HELIX	
			10	E R	20	30	40	50	60
58	12	BAA11933	MFPSONSGLN	QDDPSDRRKE	NEKFSVLRTM	VPTV...	NEVDKESILNNTI	KYLQLEEARVE	
59	110	AAF24944	PRVE.SRSSC	PPFKVRKEKL	GDRIAALQQL	VSPF...	GKTDASVLM EAI	GYIKFLQSQIE	
60	68	CAB79668	PRLQSPSSQ	STLKV RKEKL	GGRIAALHQL	VSPF...	GKTDASV LSEAI	GYIRFLQSQIE	
63	123	BAB02240	RAKSEAASPS	PAFK.RKEKM	GDRIAALQQL	VSPF...	GKTD AASV LSEAI	EYIKFLHQQVS	
64	112	AAD21412	KPRVTTPSPL	PTFKVRKENL	RDQITSLQQL	VSPF...	GKTDASV LQ EAI	EYIKFLHDQVT	
65	114	CAB81059	RPRLETLSPL	PSFKVRKEKL	GDRI TALQQL	VSPF...	GKTDASV LNEAVE	EYIKFLQEQVT	
66	111	AAF98179	AKCSEGSTLS	PEKELPKAKL	RDKITTLQQL	VSPF...	GKTDASV LQ EAI	TYINFYQEQVK	
97	48	AAD23713	HSLAERVIHNL	LTDMARREKI	NARMKLLQEL	VPGC...	DKIQGTALV LDEI	INHVQTLQRQVE	
112	83	AAG27834	PTTSPKDPQS	LAAKNRRERI	SERL KILQEL	VPNG...	TK.VDLVTMLEKAI	SYVKFLQVQVK	
113	86	BAB10359	ATTSPKDPQS	LAAKNRRERI	SERL KVLQEL	VPNG...	TK.VDLVTMLEKAI	GYVKFLQVQVK	
114	54	AAF24948	TKGTATDPQS	LYARKRREKI	NERL KTLQNL	VPNG...	TK.VDISTMLEEAV	HYVKFLQLQIK	
115	85	CAA19870	SRGAATDPQS	LYARKRRERI	NERL RILQNL	VPNG...	TK.VDISTMLEEAV	HYVKFLQLQIK	
116	139	ABO23030	NRGIASDPQS	LYARKRRERI	NDRL KTLQSL	VPNG...	TK.VDISTMLEDAV	HYVKFLQLQIK	
118	88	NP201507	NVRISKDPQS	VAAHRRERI	SERIRILQRL	VPGG...	TK.MDTASMLDEAI	HYVKFLKKQVQ	
119	43	CAB89355	NVRISDDPQS	VAAHRRERI	SERIRILQRL	VPGG...	TK.MDTASMLDEAI	RYVKFLKRQIR	
120	40	CAB80770	NVRISDDPQT	VVARRRERIE	SEKIRILKRI	VPGG...	AK.MDTASMLDEAI	RYTKFLKRQVR	
121	87	BAB03046	NVKISTDPQT	VAAQRRERI	SEKIRVLQTL	VPGG...	TK.MDTASMLDEAA	NYLKF LRAQVK	
122	140	CAB81914	TSTLSTDPQS	VAAARRRHRIS	SDRFKILQSM	VPGG...	AK.MDTVSM LDEAI	SYVKFLKAQIW	
128	142	BAB09865	STKEDTGSGLS	NEQSSKDKI	RTALKILES	VPGA...	KGNEALLLLDEAI	DYLKLLKRDLI	
130	144	AAG52051	QSLSGSASSS	NNDGKGRKMK	KKMMGVLRRI	VPGG...	EQMNTACV LDEAV	QYLKSLKIEAQ	
140	117	BAB01396	TSGSPTASND	GGIITKRRI	SDKIRSLEKLM	PWE...	RKMNLAM.TLEESH	KYIKFLQSQIA	
141	146	CAB81011	DGIRILERPD	KEGGNEEGGI	EERLRELKLL	LPGG...	EEMNVEE.MLSEI	GNYIKCLELQTI	
144	149	NP563839	GNCKSRKGLT	ETNRIKLP	VERKLIKLR	VPGC...	RKVSVPN.LLDEAT	DYIAALEMQVR	
145	150	AAF26082	LAAAIRGSGG	SGRRRKLSAV	GNRV RVLGGL	VPGC...	RRTALPE.LLDETA	DYIAALEMQVR	
146	151	AAB63827	IMIRPRKSVE	AASRRPCRAI	HRRVKT LKEL	VPNT...	KTSEGLDGLFRQT	ADYILALEMKVK	
147	152	AAF87154	LVLKRQWLIG	TTREGRS	GSIQIKMRKLR	VLPGG...	RRLNQPDLLLTKT	ADYIMHLELRIR	
129	143	CAC05472	SSKQETGSGLS	DEQSRKDKI	HTALRILES	VPGA...	KGNEALLLLDEAI	DYLKLLKQSLN	

Total 27 proteins