

```

CKL1      FRLGRKIGSGSFGEIYLGTNIHTNEELAIKLENVKTKHPQLLYESKLYRILQGGTGVPNV  60
CKL12     YRLGRKIGSGSFGEIYLGTNIHTNEEVAIKLENVKTKHPQLLYESKLYRILQGGTGVPNV  60
CKL2      FRLGRKIGSGSFGEIYLGTNIHTNEEVAIKLENVKTKHPQLLYESKLYRILQGGTGVPNV  60
CKL5      FRLGRKIGSGSFGEIYLGTNDVQTNEEVAIKLESVKTAHPQLSYESRIYRVLQGGTGIPNM  60
CK1d      YRLGRKIGSGSFGEIYLGTNDIAAGEEVAIKLECVKTKHPQLHIESKIYKMMQGGVGIPTI  60
CKL8      YKLGRKIGSGSFGEIYLGNNVQTGEEVAVKLEPARARHPQLHYESKLYMLLQGGTGIPHL  60
CKL13     FKLGRKIGSGSFGEIYLGNNVQTGEEVAVKLEPLRARHPQLHYESKLYMLLQGGTGIPHL  60
CKL10     FKLGRKIGSGSFGEIYGINVQTGEEVALKLEPVKTKHPQLHYESKLYMLLQGGTGVPHI  60
CKL11     FKLGRKIGSGSFGEIYGINVQTGEEVAVKLEPVKTRHPQLQYESKIYMFVQGGTGVPHL  60
CKL7      FKLGRKIGSGSFGEIYLGNNVQTGEEVAVKLENVKTKHPQLHYESKLYMLLQGGSGIPNI  60
CKL9      FKLGRKIGSGSFGEIYLGNNVQTGEEVAVKLESVKTKHPQLHYESKLYMLLQGGTGVPNL  60
CKL6      FKLGRKIGSGSFGEIYLAVALQTGEEAAVKLEPAKTKHPQLHYESKIYMLLQGGSGIPSL  60
CKL3      YKLGRKIGSGSFGEIYLAVALQTGEEAVKLEPAKTKHPQLLYEAKLYRILEGGSGIPRI  60
CKL4      YKLGRKIGSGSFGEIYLAVALQTGEEAVKLEPAKTKHPQLLYEAKLYRILEGGSGIPRI  60
          :***:*.*****:.. : : * *:!* : : **** *::* :*: * :* :
          :

CKL1      KWFGVEGDYNVLVMDDLGPSLEDLFNFCRRLSLKSVLMLADQMINRVEYFHSKSFHLRD  120
CKL12     KWFGVEGDYNTLVMDDLGPSLEDLFNFCRRLSLKSVLMLADQMINRVEYFHSKSFHLRD  120
CKL2      KWYGVGEGDYNVLVIDDLGPSLEDLFNFCRRLSLKTVLMLADQMINRVEYFVHQSKFHLRD  120
CKL5      KWYGVGEGDYNVLVMDDLGPSLEDLFSYCKRQFSLKTVLMLADQMINRLEFVHSSKYLHRD  120
CK1d      RWCAEGEDYNVMMVMDLGPSLEDLFNFCRRLSLKTVLMLADQMSRIEYVHSSKYLHRD  120
CKL8      KWYGVGEGDYNVCMVIDDLGPSLEDLFNFCRRLSLKTVLMLADQMINRVEYMHVRGFLHRD  120
CKL13     KWFGVEGEFNCMVIDDLGPSMEEFNFYCSRFSKTVLMLADQMINRVEYMHVKGFLHRD  120
CKL10     KWFGVEGNYNCMAIDDLGPSLEDLFNFCRRLSLKTVLMLADQMINRVEYMHVSRGFLHRD  120
CKL11     KWFGVEGNYNCMVIDDLGPSLEDLFNFCRRLSLKTVLMLADQMINRVEYMHVSRGFLHRD  120
CKL7      KWFGVEGDYSVMVIDDLGPSLEDLFNFCRRLSLKTVLMLADQMINRVEYMHVSRGFLHRD  120
CKL9      KWYGVGEGDYNVMVIDDLGPSLEDLFNFCRRLSLKTVLMLADQMINRVEYMHVSRGFLHRD  120
CKL6      KWFGVQGDYNVNVIDDLGPSLEDLFNFCRRLSLKTVLMLADQMINRVEYMHVSRGFLHRD  120
CKL3      KWFGVDGTENALVMDLGPSLEDLFVYCGRKFSPKTVLMLADQMLTRIEVHSSKYLHRD  120
CKL4      RWFGVDSGTENALVMDLGPSLEDLFVYCGRKFSPKTVLMLADQMLTRIEVHSSKYLHRD  120
          :* *:* * . :.:***:*.***: * * * .. *::***: *::*. * ..:***
          :

CKL1      LKPDNFMGLGRKANQVYIIDFGLAKKYRDSSTHQHIPYRENKTLGTARYASMNTHLGI  180
CKL12     LKPDNFMGLGRKANQVYIIDFGLAKKYRDNTHHQHIPYRENKTLGTARYASMNTHLGI  180
CKL2      IKPDNFMGLGRKANQVYIIDFGLAKKYRDSSTHQHIPYRENKTLGTARYASMNTHLGI  179
CKL5      IKPDNFMGLGRKANQVYIIDYGLAKKYRDSSTHRHIPYRENKSLIGTPRYASLNTHLGI  180
CK1d      VKPDNFMGLGKGNLVYIIDFGLAKKYRDARTHQHIPYRENKTLGTARYASINTHLGI  180
CKL8      IKPDNFMGLGRKANQVYIIDYGLAKKYRDLQTHRHIPYRENKTLGTARYASVNTHLGI  180
CKL13     IKPDNFMGLGRKANQVYIIDYGLAKKYRDLQTHKHIPYRENKTLGTARYASVNTHLGI  180
CKL10     IKPDNFMGLGRKANQVYIIDYGLAKKYRDLQTHKHIPYRENKTLGTARYASVNTHLGI  180
CKL11     IKPDNFMGLGRKANQVYIIDYGLAKKYKDLQTKHPIYRENKTLGTARYASVNTHLGI  180
CKL7      IKPDNFMGLGRKANQVYIIDFGLGKKYRDLQTHKHIPYRENKTLGTARYASVNTHLGV  180
CKL9      IKPDNFMGLGRKANQVYIIDFGLGKKYRDLQTHRHIPYRENKTLGTARYASVNTHLGV  180
CKL6      IKPDNFMGLGRKANQVYIIDFGLAKKYRDLQTHRHIPYRENKTLGTARYASVNTHLGV  180
CKL3      IKPDNFMGLGRKANQVYIIDFGLAKRYRDNANTNRHIPYRENKTLGTARYASCNTHLGI  180
CKL4      IKPDNFMGLGRKANQVYIIDFGLAKRYRDNANTNRHIPYRENKTLGTARYASCNTHLGI  180
          :*****:.. * *: :*:*.***: * ..:*****.* **.* ** * * *
          :

CKL1      EQSRRDDLESGLYILMYFLKGSPLWQGLKAGTKKQKYERI SEKKVSTSI EALCRGYPSEF  240
CKL12     EQSRRDDLESGLYILMYFLKGSPLWQGLKAGTKKQKYERI SEKKVSTSI EALCRGYPSEF  240
CKL2      EQSRRDDLESGLYILMYFLKGSPLWQGLKAGNKKQKYEKI SEKKVSTSI EALCRGYPSEF  239
CKL5      EQSRRDDLESGLYILMYFLKGSPLWQGLKAGNKKQKYDKI SEKKVSTSI EALCRGYPSEF  240
CK1d      EQSRRDDLESGLYILMYFLNGLSPLWQGLKAGTKKQKYERI SEKKVSTSI EALCRGYPSEF  240
CKL8      EQSRRDDLESGLYILMYFLRGSPLWQGLRAGTKKQKYDKI SEKKVSTSI EALCRGYPSEF  240
CKL13     EQSRRDDLESGLYILMYFLRGSPLWQGLRAGTKKQKYDKI SEKKVSTSI EALCRGYPSEF  240
CKL10     EQSRRDDLESGLYILMYFIRGSLPWQGLKAGTKKQKYEKI SEKKVSTSI EALCRGYPSEF  240
CKL11     EQSRRDDLESGLYILMYFIRGSLPWQGLKAGTKKQKYDKI SEKKVSTSI EALCRGYPSEF  240
CKL7      EQSRRDDLESGLYILMYFLKGSPLWQGLKAGTKKQKYDRI SEKKVSTSI EALCRGYPSEF  240
CKL9      EQSRRDDLESGLYILMYFLKGSPLWQGLKAGTKKQKYDRI SEKKVSTSI EALCRGYPSEF  240
CKL6      EQSRRDDLESGLYILMYFLRGSPLWQGLKAGTKKQKYDRI SEKKVSTSI EALCRGYPSEF  240
CKL3      EQSRRDDLESGLYILMYFLRGSPLWQGLKAGTKKQKYDRI SEKKVSTSI EALCRGYPSEF  240
CKL4      EQSRRDDLESGLYILMYFLRGSPLWQGLKAGTKKQKYDRI SEKKVSTSI EALCRGYPSEF  240
          **.***:*:***: * * * *****: * *::***:*.*** *:. * ** . * **
          :

CKL1      ASYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL12     ASYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL2      ASYFHYCRSLRFDDKPDYAYLKRIFRDLFI  269
CKL5      ASYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CK1d      ATYLNFCRSLRFDDKPDYAYLKRIFRDLFI- 269
CKL8      TSYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL13     TSYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL10     TSYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL11     TSYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL7      VSYFHYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL9      VSYFRYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL6      VSYFYCRSLRFDDKPDYAYLKRIFRDLFI  270
CKL3      ASYFHYCHTLTFDQRPDYAYLKRIFRDLFI- 269
CKL4      ASYFHYCHTLTFDQRPDYAYLKRIFRDLFI- 269
          :.: : : * *::***: * *::***:
          :

```

Supplemental Figure 1. Alignment of kinase domains of Arabidopsis CKL and human CK1delta (CK1d). Leu 85 and Ile 148 that are crucial for B-AZ binding (Figure 4) are marked in orange.