**Figure 4 – figure supplement 2. Overview over the kinases identified by LC-MS/MS after affinity purification with bZIP63**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |
| **Kinase family** | **found in** | | **Kinase subuni1** | | | | |
| **IP-MS/MS2** | | **Protein name4** | | **AGI5** | **MW** | **Subcellular localization** |
| **Yes/No** | **# of finds3** | **(all s.f.)6** | **shown by GFP fusion7** |
| **SnRK1** | **Yes** | **9** | **AKIN10 / SnRK1.1** | **SNF1 Kinase homolog 10, SNF1-related protein kinase 1.1** | At3g01090 | 58/61/58 | **N**[1,2], C[1,2,3], CP[3] |
| **Yes** | **7/8\*** | **AKIN11 / SnRK1.2** | **SNF1 Kinase homolog 11, SNF1-related protein kinase 1.2** | At3g29160 | 59/59/41 | **N**[1,2], C[1,2,3], CP[3] |
| Yes | 0/1\* | AKIN12 / SnRK1.3 | SNF1 Kinase homolog 12, SNF1-related protein kinase 1.3 | At5g39440 | 57 | ? |
| No |  | AKINb1 | SnRK1 kinase regulatory subunit beta-1 | At5g21170 | 31/35 | PM[4], **N**[4] |
| Yes | 1 | AKINb2 | SnRK1 kinase regulatory subunit beta-2 | At4g16360 | 29/29/29 | PM[4], C[4,5], **N**[5] |
| No |  | AKINb3 | SnRK1 kinase regulatory subunit beta-3 | At2g28060 | 13 | **N**[5], C[5] |
| **Yes** | **9** | **SNF4** | **Sucrose Nonfermenting 4** | At1g09020 | 53/43 | **N**[2,5], C[2,5] |
| **CDPKs** | **Yes** | **3** | **CPK3 / CDPK6** | **Calcium-dependent protein kinase 3** | At4g23650 | 59 | C[6,7,8], **N**[6,7,8], PM[7], VM[7] |
| Yes | 1 | CPK5 | Calcium-dependent protein kinase 5 | At4g35310 | 63 | C[9], **N**[9] |
| Yes? | 0/2\* | CPK4 | Calcium-dependent protein kinase 4 | At4g09570 | 56 | C[6,9,10], **N**[9,10] |
| Yes? | 0/2\* | CPK11 / CDPK2 | Calcium-dependent protein kinase 11 | At1g35670 | 56 | C[9,10,11], **N**[9,10,11] |
| Yes | 1 | CPK9 | Calcium-dependent protein kinase 9 | At3g20410 | 60 | PM[6,12,13,14] |
| **CKII** | **Yes** | **7/8\*** | **CKA1** | **Casein Kinase II alpha chain 1** | At5g67380 | 48/44 | **N**[15] |
| **Yes** | **9/10\*** | **CKA2** | **Casein Kinase II alpha chain 2** | At3g50000 | 47 | **N**[15] |
| No |  | CKA3 | Casein Kinase II alpha chain 3 | At2g23080 | 39/36 | **N**[15] |
| Yes | 7 | CKAcp | Casein Kinase II chloroplastidic alpha chain | At2g23070 | 50 | CP[1,15] |
| **Yes** | **7** | **CKB1** | **Casein Kinase II beta chain 1** | At5g47080 | 32/29/28/32 | **N**[15,16], C[15,16?] |
| No |  | CKB2 | Casein Kinase II beta chain 2 | At4g17640 | 32/31 | **N**[15,16] |
| No |  | CKB3 | Casein Kinase II beta chain 3 | At3g60250 | 31/31 | **N**[15], C[15] |
| No |  | CKB4 | Casein Kinase II beta chain 4 | At2g44680 | 32/32 | C[15,17], **N**[17] |
| **other** | **Yes** | **2** | **CKL2** | **Casein kinase I-like protein 2** | At1g72710 | 52 | **N**[18], C[18] |
| Yes | 1 | MPK16 | Mitogen-activated protein kinase 16 | At5g19010 | 56 | ? |
| Yes? | 0/1\* | CDKC2 | Cyclin-dependent kinase C2 | At5g64960 | 57/51 | **N**[19,20] |
| Yes? | 0/1\* | CDKC1 | Cyclin-dependent kinase C1 | At5g10270 | 57 | **N**[21] |
| Yes | 1 | CRK9, EP1 | Cysteine-Rich RLK (Receptor-Like Protein Kinase) 9 | At4g23170 | 30 | ? |
|  |  |  |  |  |  |  |  |

1 List of all kinase complex subunits identified in the LC-MS/MS approach to find bZIP63 upstream kinases. For SnRK1 and CKII, the remaining, but not identified kinase subunits, are also included. Kinase subunits which were identified with proteotypic peptides in more than one sample, have approximately the expected size, and don’t have a contradicting subcellular localization were considered high confidence candidates and are shown in black. Low confidence kinases subunits and kinases subunits not found are shown in grey and reasons for exclusion from the high confidence list are underlined.  
2 Found by immunoprecipitation followed by tandem mass spectrometry?  
3 Number of samples in which the protein was found (\* including samples without proteotypic peptide for this kinase subunit).  
4 Short and long name of the kinase complex subunits.  
5 gene identifier according to TAIR (www.arabidopsis.org).  
6 Molecular weight of all splicing forms (s.f.).  
7 Published subcellular localization of the protein as shown by GFP fusion: N (nucleus), C (cytoplasm), CP (chloroplast), PM (plasma membrane), VM (vacuolar membrane). References: [1] Bayer et al., 2012; [2] Bitrian et al., 2011; [3] Fragoso et al., 2009; [4] Pierre et al., 2007; [5] Gissot et al., 2006; [6] Dammann et al., 2003; [7] Mehlmer et al., 2010; [8] Berendzen et al., 2012; [9] Boudsocq et al., 2010; [10] Zhu et al., 2007; [11] Rodriguez Milla et al., 2006; [12] Benetka et al., 2008; [13] Dong et al., 2008; [14] Padmanaban et al., 2007; [15] Salinas et al., 2006; [16] Park et al., 2008; [17] Perales et al., 2006; [18] Lee et al., 2005; [19] Koroleva et al., 2005; [20] Kitsios et al., 2008; [21] Boruc et al., 2010