

Protein kinase CK2: from structures to insights

K. Niefind · J. Raaf · O.-G. Issinger

Published online: 20 August 2009
© Birkhäuser Verlag, Basel/Switzerland 2009

Erratum to: Cell. Mol. Life Sci. 66 (2009) 1800–1816
DOI [10.1007/s00018-009-9149-8](https://doi.org/10.1007/s00018-009-9149-8)

Cell. Mol. Life Sci. 66 (2009), 1800–1816 (DOI [10.1007/s00018-009-9149-8](https://doi.org/10.1007/s00018-009-9149-8)), are wrong. The authors and the publishers apologize for any inconvenience. The correct Table 1 reads as follows:

Due to errors in the editorial process most references in Table 1 of K. Niefind, J. Raaf and O.-G. Issinger,

Table 1 CK2 structures available at the Protein Data Bank [18] ranked according to resolution

| Protein construct/ designation in the text | Species | Main ligands | Resol. (Å) | Exp. data available? | PDB code | Ref. |
|---|-------------------|--|---------------|-------------------------|-------------|----------|
| <i>hsCK2α</i> ^{1–335} | <i>H. sapiens</i> | 3-Methyl-1,6,8-trihydroxyanthraquinone (emodin) | 1.50 | Yes | 3BQC | [34] |
| <i>hsCK2α</i> ^{1–335} | <i>H. sapiens</i> | 5,6-Dichloro-1- β -D-ribofuranosyl-1H- benzimidazole (DRB) | 1.56 | Yes | 3H30 | [30] |
| <i>hsCK2α</i> ^{1–335} | <i>H. sapiens</i> | Adenosine 5'-(β , γ -imido)triphosphate (AMPPNP), sulphate ions | 1.61 | Yes | 2PVR | [35] |
| <i>hsCK2α</i> ^{1–335} V66A/M163L | <i>H. sapiens</i> | Adenosine 5'-(β , γ -imido)triphosphate (AMPPNP), glycerol | 1.66 | Yes | 3BW5 | [30, 33] |
| <i>zmCK2α</i> | <i>Zea mays</i> | [5-Oxo-5,6-dihydroindolo-(1,2-a)quinazolin-7- yl]-acetic acid | 1.68 | No | 1OM1 | [36] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 5,8-Diamino-1,4-dihydroxyanthrachinon | 1.70 | No | 1M2R | [37] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 2-(Cyclohexylmethylamino)-4- (phenylamino)pyrazolo[1,5-a] [1,3,5] triazine- 8-carbonitrile | 1.70 | No | 2PVJ | [25] |

The online version of the original article can be found under
doi:[10.1007/s00018-009-9149-8](https://doi.org/10.1007/s00018-009-9149-8).

K. Niefind (✉) · J. Raaf
Universität zu Köln, Department für Chemie,
Institut für Biochemie, Zùlpicher Straße 47,
50674 Köln, Germany
e-mail: Karsten.Niefind@uni-koeln.de

O.-G. Issinger
Syddansk Universitet,
Institut for Biokemi og Molekylær Biologi,
Campusvej 55, 5230 Odense, Denmark

Table 1 continued

| Protein construct/ designation in the text | Species | Main ligands | Resol. (Å) | Exp. data available? | PDB code | Ref. |
|--|----------------------|--|---------------|-------------------------|-------------|------|
| <i>hsCK2β</i> ^{1–182} | <i>H. sapiens</i> | – | 1.74 | No | 1QF8 | [7] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 4,5,6,7-Tetrabromo- <i>N,N</i> -dimethyl-1H-benzimidazol-2-amine | 1.77 | No | 1ZOE | [38] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 1,8-Dihydroxy-4-nitro-xanthen-9-one | 1.79 | No | 1M2Q | [37] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 4,5,6,7-Tetrabromo-benzimidazole | 1.81 | No | 2OXY | [39] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 5,6,7,8-Tetrabromo-1-methyl-2,3-dihydro-1H-imidazo[1,2-a] benzimidazole | 1.81 | No | 1ZOH | [38] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 3,8-Dibromo-7-hydroxy-4-methyl-2H-chromen-2-one | 1.85 | Yes | 2QC6 | [40] |
| <i>zmCK2α</i> | <i>Zea mays</i> | Probably benzamidine | 1.86 | Yes | 1LPU | [33] |
| <i>zmCK2α</i> | <i>Zea mays</i> | Adenosine 5'-(β,γ-imido)triphosphate (AMPPNP) | 1.86 | Yes | 1LP4 | [33] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 2-(4-Ethylpiperazin-1-yl)-4-(phenylamino)pyrazolo[1,5-a] [1,3,5] triazine-8-carbonitrile | 1.90 | No | 2PVL | [25] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 2-(4-Chlorobenzylamino)-4-(phenylamino)pyrazolo[1,5-a] [1,3,5]triazine-8-carbonitrile | 1.90 | No | 2PVK | [25] |
| <i>hsCK2α</i> ^{1–335} | <i>H. sapiens</i> | 3-Methyl-1,6,8-trihydroxyanthraquinone (emodin) | 1.95 | Yes | 3C13 | [34] |
| <i>zmCK2α</i> | <i>Zea mays</i> | Probably benzamidine | 2.00 | Yes | 1LR4 | [33] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 1,8-Dihydroxy-4-nitro-anthrachinon | 2.00 | No | 1M2P | [37] |
| <i>zmCK2α</i> | <i>Zea mays</i> | <i>N</i> -(3-(8-Cyano-4-(phenylamino)pyrazolo[1,5-a][1,3,5]triazin-2-ylamino) phenyl)acetamide | 2.00 | No | 2PVN | [25] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 4-(2-(1H-Imidazol-4-yl)ethylamino)-2-(phenylamino) pyrazolo[1,5-a][1,3,5]triazine-8-carbonitrile | 2.00 | No | 2PVM | [25] |
| <i>zmCK2α</i> | <i>Zea mays</i> | – | 2.18 | No | 1JAM | [41] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 4,5,6,7-Tetrabromo-2-benzotriazole | 2.19 | No | 1J91 | [41] |
| <i>zmCK2α</i> | <i>Zea mays</i> | Adenosine 5'-(β,γ-imido)triphosphate (AMPPNP) | 2.20 | Yes | 1DAW | [32] |
| <i>zmCK2α</i> | <i>Zea mays</i> | Guanosine 5'-(β,γ-imido)triphosphate (GMPPNP) | 2.20 | Yes | 1DAY | [32] |
| <i>zmCK2α</i> | <i>Zea mays</i> | <i>N,N'</i> -Diphenylpyrazolo[1,5-a][1,3,5]triazine-2,4-diamine | 2.20 | No | 2PVH | [25] |
| <i>hsCK2α</i> ^{1–335} | <i>H. sapiens</i> | Glycerol | 2.30 | Yes | 3FWQ | [42] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 4,5,6,7-Tetrabromo-1H,3H-benzimidazole-2-one | 2.30 | No | 1OXD | [39] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 4,5,6,7-Tetrabromo-1H,3H-benzimidazole-2-thion | 2.30 | No | 2OXX | [39] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 4,5,6,7-Tetrabromo-2-(methylsulphonyl)-1H-benzimidazole | 2.30 | No | 1ZOG | [38] |
| <i>hsCK2α</i> ^{1–329} E27A/K76N* | <i>H. sapiens</i> | – | 2.40 | Yes | 1NA7 | [43] |
| <i>hsCK2α</i> ^{1–335} | <i>H. sapiens</i> | Adenosine 5'-(β,γ-imido)triphosphate (AMPPNP) | 2.50 | Yes | 1PJK | [44] |
| <i>zmCK2α</i> | <i>Zea mays</i> | 3-Methyl-1,6,8-trihydroxyanthraquinone | 2.63 | No | 1F0Q | [45] |
| <i>hsCK2β</i> ^{1–193} | <i>H. sapiens</i> | – | 2.80 | Yes | 3EED | [27] |
| <i>xlCK2β</i> ^{1–178} | <i>X. laevis</i> | p21WAF1 peptide | 2.89 | Yes | 1RQF | [46] |
| <i>rmCK2α</i> ^{1–335} | <i>R. norvegicus</i> | Sulphate ions | 3.00 | Yes | 2R7I | – |
| <i>(hsCK2α</i> ^{1–337}) ₂ / <i>(hsCK2β</i>) ₂ * | <i>H. sapiens</i> | Adenosine 5'-(β,γ-imido)triphosphate (AMPPNP) | 3.10 | Yes | 1JWH | [8] |
| <i>rmCK2β</i> ^{1–193} * | <i>R. norvegicus</i> | – | 3.10 | Yes | 2R6M | – |
| <i>zmCK2α</i> | <i>Zea mays</i> | Adenosine monophosphate (AMP) | 3.15 | No | 1DS5 | [16] |

*In these cases the status of the respective C-terminus is unclear. The indicated C-termini were not introduced genetically but presumably formed by spontaneous degradation