

Role of the carboxyl terminus on the catalytic activity of protein kinase CK2 α subunit

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Protein kinase CK2 (also known as casein kinase 2) has catalytic (α , β) and regulatory (γ) subunits. The role of carboxyl amino acids in positions from 324 to 328 was studied for *Xenopus laevis* CK2 α . Deletions and mutations of these residues were produced in recombinant CK2 α , which was assayed for kinase activity. Activity dropped 7000-fold upon deletion of amino acids 324-328. The key residues are isoleucine 327 and phenylalanine 324. A three dimensional model of CK2 α indicates that these hydrophobic residues of helix α N may interact with hydrophobic residues in helix α E which is linked to the catalytic center. © 2002 Published by Elsevier Science B.V. on behalf of the Federation of European Biochemical Societies.