CDC14 encodes a protein phosphatase that is essential for mitotic exit and meiotic progression. Cdc14p dephosphorylates key mitotic targets which leads to the coordinated inactivation of mitotic cyclins, proper spindle disassembly, and completion of cytokinesis. During the meiotic cell cycle, Cdc14p has been proposed to coordinate spindle disassembly and the two consecutive chromosome segregation events.During most of the mitotic cell cycle, Cdc14p is kept inactive and sequestered in the nucleolus by Net1p as part of the RENT complex. Two regulatory networks, FEARand MEN, coordinate the stepwise nucleolar release and activation of Cdc14p. Nucleolar release of Cdc14p requires its dissociation from Net1p and inactivation of its nuclear-localization signal via Dbf2p-mediated phosphorylation. Cdc14p first relocates to the spindle pole body during early anaphase and then to the bud neck and cytoplasm during late anaphase. Released from the nucleolus, Cdc14p can dephosphorylate S-phase and M-phase mitotic cyclin substrates to coordinate the metaphase to anaphase transition. The return of Cdc14p to the nucleolus signals the completion of mitosis. Multiple regulatory pathways have been proposed to regulate Cdc14p phosphatase activity during meiosis as well.Cdc14p belongs to a subfamily of dual-specificity protein phosphatases that can dephosphorylate phosphotyrosine and phosphoserine/phosphothreonine residues. Cdc14p is conserved in fungi, worms, and mammals.