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Nota di contenuto	Cdk5/p35 Regulates Neuronal Migration -- CRMP Family Protein: Novel Targets for Cdk5 That Regulates Axon Guidance, Synapse Maturation, and Cell Migration -- Cdk5 in Presynapses -- Cyclin-Dependent Kinase 5: A Critical Regulator of Neurotransmitter Release -- Cdk5 in Dendrite and Synapse Development: Emerging Role as a Modulator of Receptor Tyrosine Kinase Signaling -- Cyclin-Dependent Kinase 5 (Cdk5) Modulates Signal Transduction Pathways Regulating Neuronal Survival -- CDK5 and Mitochondrial Cell Death Pathways -- Regulation and Function of Cdk5 in the Nucleus -- Cdk5 May Be an Atypical Kinase, but Not in the Way You Think -- Cdk5 and Neuregulin-1 Signaling -- Cyclin-Dependent Kinase 5 and Insulin Secretion -- Protein-Protein Interactions Involving the N-Terminus of p35 -- The Kinase Activity of Cdk5 and Its Regulation -- The Structural Bases of CDK5 Activity -- Cdk5, a Journey from Brain to Pain: Lessons from Gene Targeting -- Involvement of Cdk5 in Synaptic Plasticity, and Learning and Memory -- Cyclin-Dependent Kinase 5 (Cdk5): Linking Synaptic Plasticity and Neurodegeneration -- Cdk5 as a Drug Target for Alzheimer's Disease.

Cyclin Dependent Kinase 5 provides a comprehensive and up-to-date collection of reviews on the discovery, signaling mechanisms and functions of Cdk5, as well as the potential implication of Cdk5 in the treatment of neurodegenerative diseases. Since the identification of this unique member of the Cdk family, Cdk5 has emerged as one of the most important signal transduction mediators in the development, maintenance and fine-tuning of neuronal functions and networking. Further studies have revealed that Cdk5 is also associated with the regulation of neuronal survival during development as well as in neurodegenerative diseases. These observations indicate that precise control of Cdk5 is essential for the regulation of neuronal survival. The pivotal role that Cdk5 appears to play in both the regulation of neuronal survival and synaptic functions thus raises the interesting possibility that Cdk5 inhibitors may have therapeutic potential for the treatment of a number of neurodegenerative diseases.
