

# Recombinant Human CDK5R1

Cat. No. CDK5R1-669H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human CDK5R1 is produced in <i>Escherichia coli</i> BL21.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	<p>Cyclin-dependent kinase 5 activator 1 is an enzyme that in humans is encoded by the CDK5R1 gene. The protein encoded by this gene (p35) is a neuron-specific activator of cyclin-dependent kinase 5 (CDK5); the activation of CDK5 is required for proper development of the central nervous system. The p35 form of this protein is proteolytically cleaved by calpain, generating a p25 form. The cleavage of p35 into p25 results in relocalization of the protein from the cell periphery to nuclear and perinuclear regions. P25 deregulates CDK5 activity by prolonging its activation and changing its cellular location. The p25 form accumulates in the brain neurons of patients with Alzheimer's disease.</p>
<b>Unit Definition</b>	One unit will phosphorylate 1.0 picomole of the peptide substrate histone H19-18 per minute at 30 °C at pH 7.4.
<b>Physical Form</b>	Supplied as a solution in PBS pH 7.4, 1 mM EDTA, 1mM DTT and 1 mg/ml BSA.
<b>Storage</b>	-70°C. Shipped in dry ice.

## GENE INFORMATION

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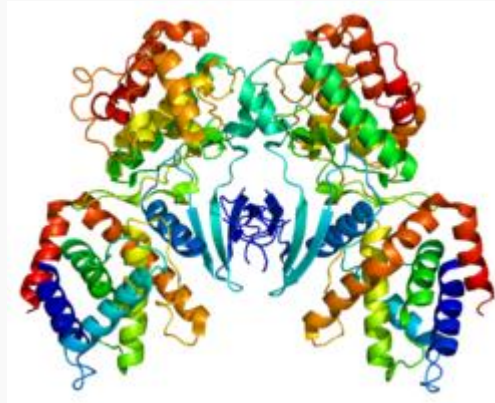
<b>Gene Name</b>	CDK5R1 cyclin-dependent kinase 5, regulatory subunit 1 (p35) [ Homo sapiens ]
<b>Synonyms</b>	CDK5R1; cyclin-dependent kinase 5, regulatory subunit 1 (p35); CDK5 activator 1; TPKII regulatory subunit; cyclin-dependent kinase 5 activator 1; cyclin-dependent kinase 5 regulatory subunit 1; neuronal CDK5 activator; regulatory partner for CDK5 kinase; tau protein kinase II 23kDa subunit; p23; p25; p35; CDK5R; NCK5A; CDK5P35; MGC33831; p35nck5a
<b>Gene ID</b>	8851
<b>mRNA Refseq</b>	NM_003885
<b>Protein Refseq</b>	NP_003876
<b>MIM</b>	603460
<b>UniProt ID</b>	Q15078
<b>Chromosome Location</b>	17q11.2
<b>Pathway</b>	Alzheimer"s disease; Axon guidance
<b>Function</b>	cadherin binding; calcium ion binding; cyclin-dependent protein kinase 5 activator activity; cyclin-dependent protein kinase activity; protein binding; protein kinase activity; protein serine/threonine kinase activator activity

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