

Recombinant Human Cyclin-Dependent Kinase 5, GST-tagged

Cat. No. CDK5-1001H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human CDK5 was expressed in E. coli cells using a N-terminal GST tag.
Species	Human
Source	E.coli
Description	CDK5 is a member of the Cyclin-Dependent Kinase family that is most abundant in the mammalian brain. Active form of CDK5, which has also been called neuronal cdc2-like kinase, is a heterodimer of CDK5 and a 25 kDa protein which is derived proteolytically from a 35 kDa brain and neuron-specific protein and is essential for the kinase activity of CDK5. CDK5 has emerged as a crucial regulator of neuronal migration in the developing central nervous system. CDK5 phosphorylates a diverse list of substrates, implicating it in the regulation of a range of cellular processes - from adhesion and motility, to synaptic plasticity and drug addiction.
Applications	Kinase Assay; Western Blot
Molecular Weight	58 kDa
Expression System	E. coli
Form	Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM PMSF, 25 % glycerol.

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Purity	> 90 %
Concentration	0.2 ug/ul
Sequences	Full-length
Storage	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	Alzheimer" s disease; Axon guidance; CRMPs in Sema3A signaling; DARPP-32 events; EPHA forward signaling; Factors involved in megakaryocyte development and platelet production; Glucocorticoid receptor regulatory network; Hemostasis; IL-6 Signaling Pathway; Lissencephaly gene (LIS1) in neuronal migration and development; Nicotine Activity on Dopaminergic Neurons; Opioid Signalling; Reelin signaling pathway; Semaphorin interactions; Trk receptor signaling mediated by the MAPK pathway

GENE INFORMATION

Gene Name	CDK5 cyclin-dependent kinase 5 [Homo sapiens]
Official Symbol	CDK5
Synonyms	CDK5; cyclin-dependent kinase 5; PSSALRE; cyclin-dependent kinase 5; OTTHUMP00000212917; OTTHUMP00000212939; TPKII catalytic subunit; protein kinase CDK5 splicing; cell division protein kinase 5; serine/threonine-protein kinase PSSALRE; tau protein kinase II catalytic subunit; Cyclin-dependent kinase 5; EC 2.7.11.22; Serine/threonine-protein kinase PSSALRE; Tau protein kinase II catalytic subunit; TPKII catalytic subunit

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Gene ID	1020
mRNA Refseq	NM_001164410
Protein Refseq	NP_001157882
MIM	123831
UniProt ID	Q00535
Chromosome Location	7q36
Function	ATP binding; ErbB-2 class receptor binding; acetylcholine receptor activator activity; cyclin-dependent protein kinase activity; kinase activity; nucleotide binding; p53 binding; protein binding; protein kinase activity; protein serine/threonine kinase activity; tau-protein kinase activity
PDB rendering based on	1h41.