

Active Recombinant Human CDK5, GST-tagged

Cat. No. CDK5-815H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human CDK5 (NM_004935 NM_003885) full-length recombinant protein with GST tag expressed in SF9 cells.
Species	Human
Source	Human
Description	Recently Cdk5 has emerged as an essential kinase in sensory pathways. Recent reports of Pareek et al. from NIH suggest its necessity in pain signaling. CDK5 is required for proper development of the brain and to be activated, CDK5 must associate with CDK5R1 or CDK5R2. Unlike other cyclin dependent kinases, CDK5 does not also require phosphorylation on the T loop so that binding with the activator is sufficient to activate the kinase.
Theoretical MW (kDa)	59, 49
Preparation Method	Insect cell (SF9) expression system
Purity	> 90% by densitometry
Activity	The specific activity was determined to be 686 nmol /min/mg as per Activity Assay Protocol.
Application	SDS-PAGE

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Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).
Storage	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Unitprot ID	Q00535
GENE INFORMATION	
Gene Name	CDK5 cyclin-dependent kinase 5 [Homo sapiens]
Official Symbol	CDK5
Synonyms	CDK5; cyclin-dependent kinase 5; PSSALRE; OTTHUMP00000212917; OTTHUMP00000212939; TPKII catalytic subunit; protein kinase CDK5 splicing; cell division protein kinase 5; EC 2.7.11.22; serine/threonine-protein kinase PSSALRE; tau protein kinase II catalytic subunit SDS-PAGE Stained with Cooma-ssie Blue.
Gene ID	1020
mRNA Refseq	NM_004935
Protein Refseq	NP_004926
MIM	123831
Chromosome Location	7q36
Pathway	Alzheimer"s disease; Axon guidance; CRMPs in Sema3A signaling; DARPP-32 events; EPHA forward signaling; Factors involved in megakaryocyte development and

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platelet production; Glucocorticoid receptor regulatory; networkHemostasis; 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

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 on1h41.

