

Recombinant Human CDKL1, GST-tagged

Cat. No. CDKL1-174H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human CDKL1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	CDKL1 or cyclin-dependent kinase-like 1 is a member of a large family of CDC2-related serine/threonine protein kinases. CDKL1, which is also known as p42 KKIALRE, accumulates primarily in the nucleus and is known to regulate important transitions in the eukaryotic cell cycle. CDKL1 and the related CDC2 protein kinase have a similar pattern of mRNA expression except in the reproductive organs. CDKL1 is expressed in several human tissues, with the highest expression in kidney and ovary. CDKL1 is overexpressed in breast cancer patients and has a positive detection efficiency of 77%. Inhibiting CDKL1 function with shRNA in MCF-7 cells shows increased accumulation of the cells at the G2/M phase and increased sensitivity to cell cycle chemotherapeutic drugs.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 50mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Molecular Mass	~60 kDa
Purity	>80% by densitometry

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Applications	Western Blot
Storage	Store product at –70 centigrade. 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.
Concentration	0.1 µg/µl
GENE INFORMATION	
Gene Name	CDKL1 cyclin-dependent kinase-like 1 (CDC2-related kinase) [Homo sapiens]
Official Symbol	CDKL1
Synonyms	CDKL1; cyclin-dependent kinase-like 1 (CDC2-related kinase); cyclin-dependent kinase-like 1; KKIALRE; CDC2-related kinase 1; protein kinase p42 KKIALRE; serine/threonine protein kinase KKIALRE; serine/threonine-protein kinase KKIALRE; P42;
Gene ID	8814
mRNA Refseq	NM_004196
Protein Refseq	NP_004187
MIM	603441
UniProt ID	Q00532
Chromosome Location	14q21.3

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Function

ATP binding; cyclin-dependent protein kinase activity; nucleotide binding;

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