Recombinant Mouse CCNE1/Cyclin-E1 Protein (His & GST Tag)

Catalog No. PKSM040448

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	AW538188;CycE1
Species	Mouse
Expression Host	Baculovirus-Insect Cells
Sequence	Met1-Glu408
Accession	AAH62152.1
Calculated Molecular Weight	74.8 kDa
Observed molecular weight	75 kDa
Tag	N-His-GST
Bioactivity	Not validated for activity
Properties	
Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μ g of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	 Lyophilized from sterile 50mM Tris, 100mM Nacl, 3mM DTT, 0.5mM GSH, 10% glycerol, pH 8.0 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

KDa	М
116 66.2	
45.0	-
35.0	-
25.0	-
18.4 14.4	=

> 90 % as determined by reducing SDS-PAGE.

Background

Cyclin E1 is a member of the highly conserved cyclin family and belongs to the E-type cyclin that functions as a regulator

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of S phase entry and progression in mammalian cells. Cyclin E1 serves as regulatory subunits that bind, activate, and provide substrate for its associated cyclin-dependent kinase2 (CDK2), whose activity is essential for cell cycle G1 / S transition. Over expression of this encoding gene has been found in many tumors, which results in chromosome instability and by extension, induce tumorigenesis. This protein was also found to associate with, and be involved in, the phosphorylation of NPAT protein (nuclear protein mapped to the ATM locus), which participates in cell-cycle regulated histone gene expression and plays a critical role in promoting cell-cycle progression in the absence of pRB. In general, cyclin E1, as an activator of phospho-CDK2 (pCDK2), is important for cell cycle progression and is frequently overexpressed in cancer cells.

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