

Recombinant Human CCNE1/Cyclin-E1 Protein (His Tag)(Active)

Catalog No. PKSH031365

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

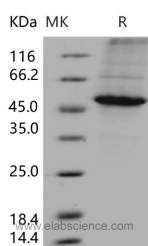
Description

Synonyms	CCNE
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met1-Ala410
Accession	NP_001229.1
Calculated Molecular Weight	49.3 kDa
Observed molecular weight	47 kDa
Tag	N-His
Bioactivity	Measured by its binding ability in a functional ELISA. Immobilized human CCNE1 at 10 µg/ml (100 µl/well) can bind biotinylated human CDK4, The EC50 of biotinylated human CDK4 is 0.10-0.32 µg/ml.

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
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, pH 8.5, 10% glycerol
Reconstitution	Please refer to the printed manual for detailed information.

Data



Background

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

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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.