

DESCRIPTION

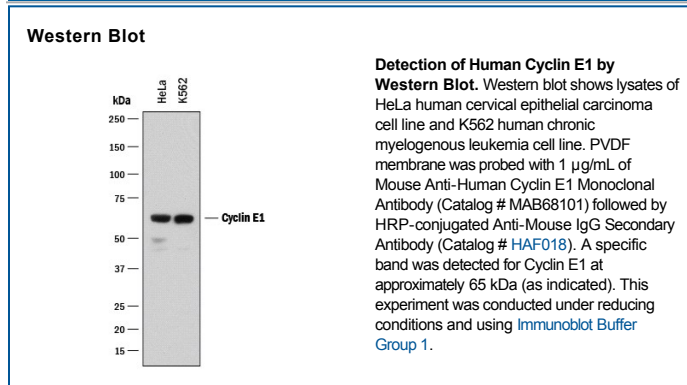
Species Reactivity	Human
Specificity	Detects human Cyclin E1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 713548
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Cyclin E1 Met16-Lys143 Accession # P24864
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Cyclin E1 (also known as G1/S-specific cyclin-E1 and CCNE1) is a 48-58 kDa member of the cyclin E subfamily, cyclin family of molecules. It associates with Cdk2 kinase, and determines substrate specificity for the complex. This complex phosphorylates multiple substrates involved in cell cycle progression and the initiation of DNA replication. Cyclin E1 is required for G1/S phase progression and cell cycle reentry from G0 phase. Its reduced activity during cellular senescence contributes to G1 arrest. Human cyclin E1 is 410 amino acids (aa) in length. It contains two cyclin box folds (aa 144-234 and 293-363) and is phosphorylated on at least eight Ser/Thr sites. There are at least two alternate splice forms. One is 40-41 kDa in size and utilizes an alternate start site at Met46, while a second is 43-44 kDa in size and shows a deletion of aa 154-196. One other potential start site exists at Met16. There are multiple proteolytic cleavage products that are tumor-associated and show increased destabilizing activity. Cleavage around Gln40 generates 44-45 kDa C-terminal fragments, while cleavage between Ala69Asp70 generates 33-35 kDa C-terminal fragments. Over aa 16-143, human cyclin E1 shares 67% aa identity with mouse cyclin E1.