

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cyclin E1 in direct ELISAs. In direct ELISAs, approximately 10% cross-reactivity with recombinant mouse Cyclin E1 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 713573
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Cyclin E1 Met16-Lys143 Accession # P24864
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.