

Technical Data Sheet

Purified Mouse Anti-Human Cyclin E

Product Information

Material Number:	554192
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	HE67
Immunogen:	Recombinant human Cyclin E
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Human
Target MW:	50 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Cyclins and cyclin-dependent kinases (cdks) are evolutionarily conserved proteins that are essential for cell-cycle control in eukaryotes. Cyclins (regulatory subunits) bind to cdks (catalytic subunits) to form complexes that regulate the progression of the cell cycle. The main cyclin-cdks complexes formed in vertebrate cells are cyclin D-cdk4 (G0/G1), cyclin E-cdk2 (G1/S), cyclin A-cdk2 (S) and cyclin B1-cdk1 (G2/M). These complexes are regulated by activating and inhibitory phosphorylation events, as well as by interactions with small proteins that bind to cyclins, cdks, or cyclin-cdk complexes, e.g., p21 and p27[Kip1]. Specific substrates for cdk-cyclin complexes include nuclear lamins, histones, oncogenes (c-src, c-abl, SV40 large T-Ag), tumor suppressor genes (e.g., retinoblastoma protein [Rb] and p53), nucleolin, RNA polymerase II and others. Cyclin E is expressed in G1 and associates with cdk2 to form an active kinase. Cyclin E-cdk2 complexes play an important role in regulation of the G1/S restriction checkpoint in the cell cycle. Aberrant expression of cyclin E is associated with oncogenic transformation of cells. Cyclin E migrates at a reduced molecular weight of ~50 kDa.

Clone HE67 recognizes human cyclin E. It does not cross-react with mouse cyclin E. Recombinant human cyclin E was used as immunogen.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Application Notes

Application

Immunoprecipitation	Routinely Tested
In vitro kinase assay	Reported

Recommended Assay Procedure:

Applications include immunoprecipitation (1-2 µg/ml). Other applications not routinely tested at BD Biosciences Pharmingen include *in vitro* kinase assays. Raji human Burkitt's lymphoma cells (ATCC CCL-86) are suggested as a positive control.

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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Sherr CJ. Mammalian G1 cyclins. *Cell.* 1993; 73(6):1059-1065.(Biology)

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