

Certificate of Analysis

Product: Affinity Purified Anti-Cyclin E2 [Rabbit]

Code: 600-401-971

Lot # 18960

Size: 100 µg

Physical State: Liquid (sterile filtered)

Protein Concentration: 1.17 mg/ml (by UV absorbance at 280 nm)

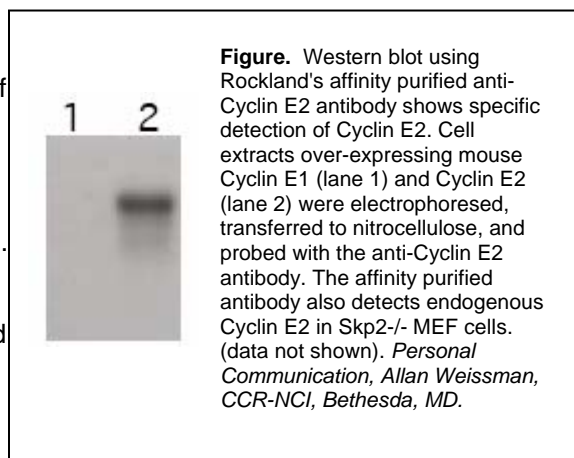
Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C or below prior to opening. Dilute only prior to immediate use. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening product.

Background Information: Cyclin E was first identified by its ability to rescue growth of yeast deficient in G1 Cyclins, indicating a role in G1 or G1/S transitions. Over-expression of Cyclin E has been observed in a variety of human tumors. Multiple isoforms of Cyclin E are expressed in tumors but not in normal tissues, suggesting a post-transcriptional regulation of Cyclin E. Cyclin E2 associates with Cdk2 in a functional kinase complex that is inhibited by both p27Kip1 and p21Cip1. The catalytic activity associated with Cyclin E2 complexes is cell cycle regulated and peaks at the G1/S transition. Unlike Cyclin E1, which is expressed in most proliferating normal and tumor cells, Cyclin E2 levels were low to undetectable in non-transformed cells and increased significantly in tumor-derived cells.



Application Note(s): This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 50 kDa in size corresponding to Cyclin E2 protein by western blotting in the appropriate cell lysate or extract.

Recommended Dilutions:

ELISA	1:20,000 - 1:85,000
WESTERN BLOT	1:200 - 1:2,000
IMMUNOHISTOCHEMISTRY	User Optimized
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This affinity purified antibody is directed against mouse Cyclin E2 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with Cyclin E2 protein from human based on 100% homology with the immunizing sequence. Cross-reactivity with Cyclin E2 from rat is also predicted based on a 91% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.

Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids at the carboxyl terminus of the Cyclin E2 protein.

Relevant Links: NCBI [AAC80527](#) Swiss-Prot [Q9Z238](#)

Related Product(s):

#[611-703-127](#) Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10
 #[611-132-122](#) IRDye® 800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
 #[B501-0500](#) BLOTTO (500 g)
 #[BSA-30](#) 30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer) (500 ml)
 #[B304](#) NORMAL GOAT SERUM (NGS) (10 ml)
 #[KIA-003](#) **MaxTag™** Anti-RABBIT IgG Kit for Immunoblotting
 #[MB-070](#) Blocking Buffer for Fluorescent Western Blotting

General References:

Philipp, G.Y., Yu, Q., Sicinska, E., Das, M., Schneider, J.E., Bhattacharya, S., Rideout, W.M., Bronson, R.T., Gardner, H., Sicinski, P. (2003) Cyclin E ablation in the mouse. *Cell* **114**(4):431-443.

Yu, Q., Sicinski, P. (2004) Mammalian cell cycles without Cyclin E-CDK2. *Cell Cycle* **3**(3):292-295.

Parisi, T., Beck, A.R., Rougier, N., McNeil, T., Lucian, L., Werb, Z., Amati, B. (2003) Cyclins E1 and E2 are required for endoreplication in placental trophoblast giant cells. *EMBO J.* **22**(18):4794-4803.

Geng, Y., Yu, Q., Whoriskey, W., Dick, F., Tsai, K.Y., Ford, H.L., Biswas, D.K., Pardee, A.B., Amati, B., Jacks, T., Richardson, A., Dyson, N., Sicinski, P. (2001) Expression of Cyclins E1 and E2 during mouse development and in neoplasia. *Proc. Natl. Acad. Sci. USA* **98**(23):13138-13143.

Berthet, C., Aleem, E., Coppola, V., Tessarollo, L., Kaldis, P. (2003) Cdk2 knockout mice are viable. *Curr. Biol.* **13**(20):1775-1785.

Aleem, E., Kiyokawa, H., Kaldis, P. (2005) Cdc2-Cyclin E complexes regulate the G1/S phase transition. *Nat. Cell Biol.* **7**(8):831-836.

USDA Certification: All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.