DB015: cyclin E (C19)

Background:

During each cell cycle cyclins undergo periodic accumulation and destruction. As key regulators of the cell cycle the cyclins control important transitions by activating Cdks (1,2). Early in the G1 phase of the cell cycle cyclin D1 induction is followed by cyclin E induction (3,4). This sequential progression is marked early on in G1by the activation of Cdk4 and in mid to late G1 by the activation of Cdk2 and the hyperphosphorylation of pRB (3,5). The final transition into S phase is thought to be dependent on the increased expression and association of cyclin E and Cdk2 (5,6).

Origin:

Cyclin E (C19) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminus of rat cyclin E.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG, cyclin E *(C19) DB015*, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, *DB015P*, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

Specificity:

Cyclin E *(C19) DB015* reacts with cyclin E of mouse, rat, and human origin by western blotting, immunoprecipitation, and immunohistochemistry. Western blotting starting dilution: 1:200.

Storage:

Store this product at 4º C, do not freeze. The product is stable for one year from the date of shipment.

References:

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3. Musgrove EA, Sarcevic B, Sutherland RL. 1996. Inducible expression of cyclin D1 in T-47D human breast cancer cells is sufficient for Cdk2 activation and pRB hyperphosphorylation. J Cell Biochem 60(3): 363-378.
4. Geng Y, Whorishey W, Park MY, Bronson RT, Medema RH, Li T, Weinberg RA, Sicinski P. 1999. Rescue of cyclin D1 deficiency by knockin cyclin E. Cell 97(6): 767-777.
5. Prall OW, Sarcevic B, Musgrove EA, Watts CK, Sutherland RL. 1997. Estrogen-induced activation of Cdk4 and Cdk2 during G1-S phase progression is accompanied by increased cyclin D1 expression and decreased cyclin-dependent kinase inhibitor association with cyclin E-Cdk2. J Biol Chem 272(16): 10882-10894.
6. Sauer K, Lehner CF. 1995. The role of cyclin E in the regulation of entry into S phase. Prog Cell Cycle Res 1: 125-139.

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