Cyclin E2 Antibody

Background: Cyclin E1 and cyclin E2 can associate with and activate CDK2 (1). Upon DNA damage, upregulation/activation of the CDK inhibitors p21 Waf1/Cip1 and p27 Kip1 prevent cyclin E/CDK2 activation, resulting in G1/S arrest. When conditions are favorable for cell cycle progression, cyclin D/CDK4/6 phosphorylates Rb and is thought to reduce the activity of p21 Waf1/Cip1 and p27 Kip1, allowing subsequent activation of cyclin E/CDK2 (1,2). Cyclin E/CDK2 further phosphorylates Rb as progress into S-phase, where cyclin E/CDK2 is thought to phosphorylate and activate multiple proteins involved in DNA synthesis (2,3). Turnover of cyclin E is largely controlled by phosphorylation that results in SCFFbw7-mediated ubiquitination and proteasome-dependent degradation (4,5). Cyclin E1 is phosphorylated at multiple sites in vivo including Thr62, Ser88, Ser72, Thr380 and Ser384, and is controlled by at least two kinases, CDK2 and GSK-3 (6,7).

Specificity/Sensitivity: Cyclin E2 Antibody detects endogenous levels of total cyclin E2 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy-terminus of human cyclin E2. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

Recommended Antibody Dilutions:
Western Blotting 1:1000
For application specific protocols please see the web page for this product at www.cellsignal.com.

Applications:

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<th>Species Cross-Reactivity*</th>
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<td>W</td>
<td>Endogenous</td>
<td>H</td>
<td>48 kDa</td>
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| Storage: | Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody. |
|** Anti-rabbit secondary antibodies must be used to detect this antibody. |

For Research Use Only. Not For Use In Diagnostic Procedures.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Species Cross-Reactivity Key:
H—human  M—mouse  R—rat  Hm—hamster  Mk—monkey  Mb—mink  C—chicken  Dm—D. melanogaster  X—Xenopus  Z—zebrafish  B—bovine  Dg—dog  Pg—pig  Sc—S. cerevisiae  Ce—C. elegans  Hr—Horse  All—all species expected

Species enclosed in parentheses are predicted to react based on 100% homology.

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Please visit www.cellsignal.com for a complete listing of recommended companion products.