p57 Kip2 Antibody

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

Applications: W, IP, IF-IC

<table>
<thead>
<tr>
<th>Species Cross-Reactivity*</th>
<th>Molecular Wt.</th>
<th>Source</th>
<th>W, IP, IF-IC Endogenous</th>
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</thead>
<tbody>
<tr>
<td>H</td>
<td>57 kDa</td>
<td>Rabbit**</td>
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Background: p27 Kip1 is a member of the Cip/Kip family of cyclin-dependent kinase inhibitors. Like its relatives, p57 Kip2 and p21 Waf1/Cip1, the ability to enforce the G1 restriction point is derived from its inhibitory binding to CDK2/cyclin E and other CDK/cyclin complexes. Expression levels of p27 are upregulated in quiescent cells and in cells treated with cAMP or other negative cell cycle regulators. Downregulation of p27 can be induced by treatment with interleukin 2 or other mitogens; this involves phosphorylation of p27 and its degradation by the ubiquitin-proteasome pathway (1-4).

Levels of p57 Kip2 are controlled by ubiquitination/degradation via the Skp1/Cul1/F-box-type E3 ubiquitin ligase complex SCF-Skp2, and this effect is dependent on Thr310 (5). A similar threonine phosphorylation site in p27 Kip1, Thr187, has also been shown to regulate protein stability (6).

Specificity/Sensitivity: p57 Kip2 Antibody detects endogenous levels of total p57 Kip2 protein. The antibody does not recognize p27 Kip1.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids near the carboxy terminus of human p57 Kip2. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunoprecipitation 1:50
Immunofluorescence (IF-IC) 1:100

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For application specific protocols please see the web page for this product at www.cellsignal.com.

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

Western blot analysis of extracts from HeLa cells, untreated or treated with dexamethasone (50 nM, 16h) alone or with λ phosphatase, using p57 Kip2 Antibody #2557.

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

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