Purified Mouse Anti-Human p53

Material Number: 554293
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: DO-1
Immunogen: Human p53
Isotype: Mouse IgG2a
Reactivity: QC Testing: Human
Tested in Development: Cow
Target MW: 53 kDa
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description
The gene for the nuclear phosphoprotein p53 is the most commonly mutated gene yet identified in human cancers. Missense mutations occur in tumors of the colon, lung, breast, ovary, bladder and several other organs. The mutant p53 is overexpressed in a variety of transformed cells and wild-type p53 forms specific complexes with several viral oncoproteins including SV40 large T, E1B from adenovirus, and E6 from human papilloma virus. Wild type p53 plays a role as a checkpoint protein for DNA damage during the G1/S-phase of the cell cycle. However, it is still unclear, whether point mutated forms of p53 are simple null mutants and/or dominant negatively acting proteins. DO-1 reacts with human wild-type and mutant p53. It cross-reacts with bovine p53 but does not cross-react with mouse or rat p53. DO-1 recognizes an epitope between amino acids 1 and 45 of all known forms of human p53. Human recombinant p53 protein was used as immunogen.

Western blot analysis of p53. Lysate from COS-7 SV40 transformed monkey kidney cells was probed with anti-p53 (clone DO-1, Cat. No. 554293).

Preparation and Storage
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

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<th>Application</th>
<th>Routinely Tested</th>
<th>Tested During Development</th>
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<tbody>
<tr>
<td>Western blot</td>
<td>Routine Tested</td>
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<td>Immunohistochemistry-formalin (antigen retrieval required)</td>
<td>Tested During Development</td>
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<td>Immunohistochemistry-frozen</td>
<td>Tested During Development</td>
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<tr>
<td>Immunoprecipitation</td>
<td>Tested During Development</td>
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Recommended Assay Procedure:
Applications include immunoprecipitation (1-2 µg/1x10^6 cells), western blot analysis (2 µg/ml), and immunohistochemistry of frozen and formalin-fixed paraaffin-embedded tissue sections (5-20 µg/ml). Positive control cell lines include COS-7 SV40 transformed monkey kidney cells (ATCC CRL-1651), SK-BR-3 human breast carcinoma cells (ATCC HTB-30), and A431 human vulval carcinoma cells (ATCC CRL-1555). Positive immunostaining is seen in a high proportion of breast and colon carcinomas. p53 staining is not typically detected in normal skin, brain, kidney, lung, stomach or breast tissue.
## Suggested Companion Products

<table>
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<th>Catalog Number</th>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
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<tr>
<td>611447</td>
<td>A431 Cell Lysate</td>
<td>500 µg</td>
<td>(none)</td>
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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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


