Anti-p53 Antibody [PD01-32]

HA721213

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IHC-P
Molecular Wt:	Predicted band size: 53 kDa
Clone number:	PD01-32

Description: Changes in the p53 gene is one of the most common genetic changes associated with cancer, being implicated in a wide range of tumour types. In many types, more than half of the tumours are p53+. Often p53 positivity is correlated with high grade lesions (e.g., carcinoma of breast, prostate and bladder, malignant lymphoma) and poor prognosis. A few tumour types are characterised by strong p53 expression in most cases, e.g., uterine papillary serous carcinoma. In many tumour types (e.g., malignant lymphomas), p53 appear to have prognostic significance , but the data are often conflicting. In dysplastic lesions, e.g., in Barrett's esophagus, p53 expression increases the risk of carcinoma. p53 may be helpful in differentiating between certain reactive and neoplastic lesions, e.g., reactive urothelial changes (patchy and weak) v. urothelial neoplasia (~60% pos.); reactive mesothelial proliferation (~10% pos.) v. malignant mesothelioma (~60% pos.). p53 positivity is a parameter in the identification of tubal intraepithelial carcinoma associated with pelvic serous carcinoma. Tonsil and appendix are the most recommendable external positive and negative tissue controls. As a guideline for an accurate p53 IHC test more than 20% of germinal centre B-cells must show a weak to moderate nuclear staining reaction, while less than 10% of the mantle zone B-cells should be demonstrated in tonsil. In appendix, dispersed epithelial cells in the basal parts of the crypts must show a weak to moderate nuclear staining reaction, while the luminal epithelial cells must be negative. In addition, it has to be emphasized, that stromal cells, lymphocytes and endothelial cells in the clinical samples are essential as internal positive tissue controls especially for carcinomas with TP53 mutations causing absence and loss of p53 expression in the tumour cells.

Immunogen:	Recombinant full length protein within Human p53.
Positive control:	Human stomach cancer tissue, human breast cancer tissue.
Subcellular location:	Cytoplasm, Nucleus, Endoplasmic reticulum, Mitochondrion matrix
Database links:	SwissProt: P04637 Human
Recommended Dilutions:	
IHC-P	1:1,000-1:2,000
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

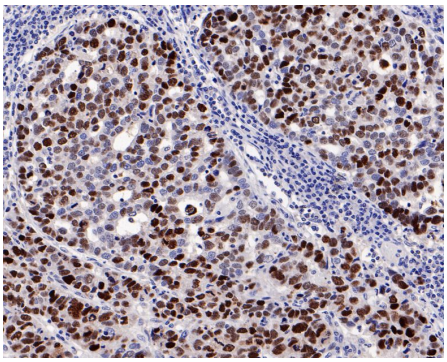

Fig1: Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue with Rabbit anti-p53 antibody (HA721213) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721213) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

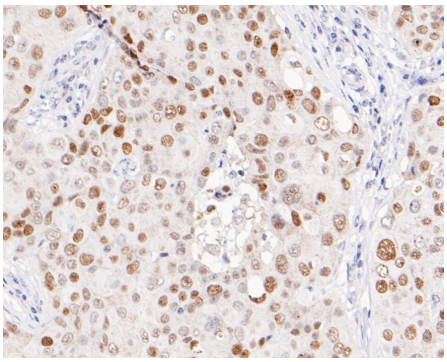

Fig2: Immunohistochemical analysis of paraffin-embedded human breast cancer tissue with Rabbit anti-p53 antibody (HA721213) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721213) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. "WOX1 is essential for tumor necrosis factor-, UV light-, staurosporine-, and p53-mediated cell death, and its tyrosine 33-phosphorylated form binds and stabilizes serine 46-phosphorylated p53." Chang N.-S., Doherty J., Ensign A., Schultz L., Hsu L.-J., Hong Q. J. Biol. Chem. 280:43100-43108(2005).
2. "Protein kinase C delta regulates Ser46 phosphorylation of p53 tumor suppressor in the apoptotic response to DNA damage." Yoshida K., Liu H., Miki Y. J. Biol. Chem. 281:5734-5740(2006).