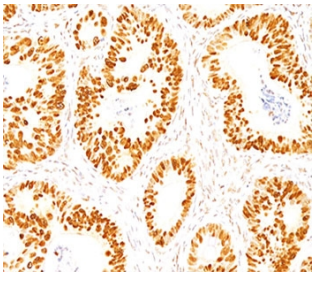
# p53 Antibody (N-Terminal Region) [clone DO-7] (V2284)

| Catalog No. | Formulation | Size |
|---|---|---|
| V2284-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V2284-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V2284SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |
| V2284IHC-7ML | Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only* | 7 ml |

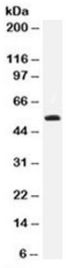
Citations (32)

**Bulk quote request**

| | |
|---|---|
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG2b, kappa |
| **Clone Name** | DO-7 |
| **Purity** | Protein G affinity chromatography |
| **Buffer** | 1X PBS, pH 7.4 |
| **Gene ID** | 7157 |
| **Localization** | Nuclear |
| **Applications** | Western Blot : 0.5-1.0ug/ml<br>Immunohistochemistry (FFPE) : 0.5-1.0ug/ml for 30 min at RT (1)<br>Prediluted IHC Only Format : incubate for 30 min at RT (2) |
| **Limitations** | This **p53 antibody** is available for research use only. |



IHC staining of FFPE normal human colon with p53 antibody (clone DO-7).




Western blot testing of 293 cell lysate with p53 antibody (clone DO-7).

## Description

p53 antibody clone DO-7 is a monoclonal antibody directed against p53, a tumor suppressor protein that functions as a transcription factor regulating cell cycle arrest, DNA repair, and apoptosis. p53 is widely known as the guardian of the genome, as it prevents the propagation of damaged DNA by halting cell cycle progression or triggering programmed cell death. Mutations in the TP53 gene are among the most frequent genetic alterations in human cancers, making p53 a central focus of oncology research. NSJ Bioreagents provides p53 antibody clone DO-7 for reliable detection of this critical regulator in cancer biology and cell cycle studies.

p53 antibody clone DO-7 produces strong nuclear staining in normal and tumor tissues, making it one of the most widely used reagents in pathology. It recognizes both wild-type and many mutant forms of p53, which often accumulate in tumor cells due to increased stability. This feature allows clone DO-7 to serve as a sensitive marker for assessing p53 status in diagnostic and research settings.

In oncology, p53 antibody clone DO-7 is applied to study tumor progression, prognosis, and therapeutic response. Detection of p53 accumulation in tumor samples often correlates with TP53 mutation, which can influence disease outcome and treatment strategies. Researchers and pathologists employ this antibody across a wide range of cancers, including breast, colon, lung, ovarian, and brain tumors.

Beyond oncology, p53 antibody clone DO-7 is valuable in cell biology, where p53 serves as a model for understanding how cells respond to genotoxic stress. It has been used to investigate p53 activation following DNA damage, the transcriptional regulation of target genes such as p21, and the induction of apoptosis in stressed cells.

p53 antibody clone DO-7 has been validated in tissue and cell-based studies, producing consistent nuclear staining with minimal background. It has an extensive publication record reflecting decades of use in cancer and molecular biology. Alternate names include TP53 antibody, tumor suppressor p53 antibody, and transformation related protein 53 antibody.

## Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the p53 antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

## Immunogen

Recombinant human wild type p53 expressed in E. coli was used as the immunogen for this antibody. Its epitope maps within the N-terminus portion (aa 20-25) of the p53 oncoprotein.

## Storage

Store the p53 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

Antigen NY-CO-13, BCC7, LFS1, TP53, Transformation Related Protein 53 (TRP53), Tumor Suppressor p53 antibody

References (2)