

# Anti-p53 [Pab DO-1]

**Catalogue number:** 151147

**Sub-type:** Primary antibody

**Images:** <https://9406360.fs1.hubspotusercontent-na1.net/hubfs/9406360/Product%20Images/Antibodies/151412%20765x500.png>

## Contributor

**Inventor:** David Lane

**Institute:** University of Dundee

**Images:** <https://9406360.fs1.hubspotusercontent-na1.net/hubfs/9406360/Product%20Images/Antibodies/151412%20765x500.png>

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** Anti-p53 [Pab DO-1]

**Alternate name:** P53, Trp53, pantropic

**Class:** Monoclonal

**Conjugate:** Unconjugated

**Description:** A monoclonal p53 antibody, the epitope recognised is in the N terminus of p53. DO-1 recognises wild-type and mutant p53. DO-1 recognises three of the p53 isoforms (p53, p53 $\beta$ , p53 $\gamma$ ).

**Purpose:**

**Parental cell:**

**Organism:**

**Tissue:**

**Model:**

**Gender:**

**Isotype:** IgG2a

**Reactivity:** Human

**Selectivity:**

**Host:** Mouse

**Immunogen:** Recombinant human wild type p53 protein expressed in E.coli

**Immunogen UNIPROT ID:** P04637

**Sequence:**

**Growth properties:**

**Production details:**

**Formulation:**

**Recommended controls:** MDA-MB-231 cell line

**Bacterial resistance:**

**Selectable markers:**

**Additional notes:**

## Target details

**Target:** p53 (N terminus)

**Target alternate names:**

**Target background:** p53 is a crucial tumour suppressor involved in over 50% of cancers. It acts as a stress-responsive transcription factor and plays a vital role in regulating cell cycle arrest, promoting apoptosis, maintaining genomic stability, controlling the cell cycle, and inhibiting angiogenesis. Known as the "guardian of the genome," p53 prevents gene mutations. Mutations in the p53 gene are common in human cancers, resulting in dysfunctional proteins unable to bind to DNA. This loss of function compromises p53's tumour suppressor activity. While p53 is typically found in low levels in healthy cells due to its short lifespan, disease states lead to increased expression driven by somatic mutations. This heightened expression is believed to contribute to cellular transformation and malignancy. Twelve isoforms of p53 have been described: p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>, and p53<sup>Δ133</sup>. Depending on the location of the epitope, antibodies may detect different isoforms of p53. Mutations to p53 can cause conformational changes that expose different epitopes. This antibody was created by David Lane, who also discovered p53, to measure p53 in various analyses of different tissue samples. Anti-p53 DO-1 has been used frequently for staining sections, it can be used on frozen sections as well as methacarn or formol saline fixed paraffin sections. DO-1 recognises an epitope on the N terminus region of p53, between aa 20-25. DO-1 recognises both wild-type and mutant p53. DO-1 recognises three of the p53 isoforms (p53, p53<sup>Δ133</sup>, p53<sup>Δ133</sup>).

**Molecular weight:** 53 kDa

**Ic50:**

## Applications

**Application:** ChIP ; IHC ; IF ; IP ; WB

**Application notes:**

## Handling

**Format:** Liquid

**Concentration:** 1 mg/ml

**Passage number:**

**Growth medium:**

**Temperature:**

**Atmosphere:**

**Volume:**

**Storage medium:**

**Storage buffer:** PBS with 0.02% azide

**Storage conditions:** Store at -20° C frozen. Avoid repeated freeze / thaw cycles

**Shipping conditions:** Shipping at 4° C

## Related tools

**Related tools:** Anti-p53 [Pab DO-2] ; Anti-p53 [DO-11]

## References

**References:**

CancerTools.org