# Datasheet: MCA1704

| | |
|---|---|
| **Description:** | MOUSE ANTI HUMAN p53 (aa181-190) |
| **Specificity:** | p53 (aa181-190) |
| **Format:** | Purified |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | DO-11 |
| **Isotype:** | IgG1 |
| **Quantity:** | 0.1 mg |

## Product Details

**Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

| | Yes | No | Not Determined | Suggested Dilution |
|---|---|---|---|---|
| Flow Cytometry | | | ▪ | |
| Immunohistology - Frozen | ▪ | | | |
| Immunohistology - Paraffin (1) | ▪ | | | 1/1000 |
| ELISA | | | ▪ | |
| Immunoprecipitation | ▪ | | | |
| Western Blotting | ▪ | | | 1/200 - 1/2000 |

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1)**This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.Sodium citrate buffer pH 6.0 is recommended for this purpose.**

| | |
|---|---|
| **Target Species** | Human |
| **Product Form** | Purified IgG - liquid |
| **Preparation** | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant |
| **Buffer Solution** | Phosphate buffered saline |
| **Preservative Stabilisers** | 0.09% sodium azide ($NaN_3$) |

| | |
|---|---|
| **Carrier Free** | Yes |
| **Approx. Protein Concentrations** | IgG concentration 1.0 mg/ml |
| **Immunogen** | Recombinant human p53. |
| **External Database Links** | **UniProt:**<br>P04637 Related reagents<br><br>**Entrez Gene:**<br>7157 TP53 Related reagents |
| **Synonyms** | P53 |
| **RRID** | AB_322636 |
| **Fusion Partners** | Spleen cells from immunized BALB/c mice were fused with cells of the mouse X63Ag8.653 myeloma cell line. |
| **Specificity** | **Mouse anti Human p53 antibody, clone DO-11** recognizes the human Cellular tumor antigen p53, also known as p53 tumor suppressor protein or NY-CO-13. p53 is a 393 amino acid ~53kDa cytoplasmic/ nuclear protein up-regulated in response to DNA damage and is found in a wide variety of transformed cells (UniProt: P04637).<br><br>DO-11 binds to an epitope within the central region of p53 between amino acids 181 - 190 defining a cryptic epitope exposed in unfolded/ denatured p53 (Shimitzu *et al.* 2006). Nine isoforms of human p53 are produced by alternative splicing and promotor usage, the epitope recognized by clone DO-11 is present in all isoforms. Mouse anti Human p53 antibody, clone DO-11 recognizes mutant forms of p53 (Warnock *et al.* 2011) and has been used successfully for detection of p53 by western blotting (Wei *et al.* 2012). |
| **Histology Positive Control Tissue** | Normal human colon or breast carcinoma |
| **References** | 1. Vojtesek, B. *et al.* (1995) Conformational changes in p53 analysed using new antibodies to the core DNA binding domain of the protein. Oncogene. 10 (2): 389-93.<br>2. Palecek, E. *et al.* (2001) Binding of p53 and its core domain to supercoiled DNA. Eur J Biochem. 268: 573-81.<br>3. Coomber, D.W. and Ward, .R.L. (2001) Isolation of human antibodies against the central DNA binding domain of p53 from an individual with colorectal cancer using antibody phage display. Clin Cancer Res. 7: 2802-8.<br>4. Wei, J. *et al.* (2012) Pathogenic bacterium Helicobacter pylori alters the expression profile of p53 protein isoforms and p53 response to cellular stresses. Proc Natl Acad Sci U S A. 109: E2543-50.<br>5. Warnock, L.J. *et al.* (2011) Aurora A mediates cross-talk between N- and C-terminal post-translational modifications of p53. Cancer Biol Ther. 12: 1059-68. |

| | |
|---|---|
| **Storage** | This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.<br><br>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. |
| **Guarantee** | 12 months from date of despatch |
| **Health And Safety Information** | Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1704<br>10040 |
| **Regulatory** | For research purposes only |

# Related Products

## Recommended Secondary Antibodies

| | |
|---|---|
| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | HRP |
| Goat Anti Mouse IgG (STAR76...) | RPE |
| Goat Anti Mouse IgG (STAR70...) | FITC |
| Rabbit Anti Mouse IgG (STAR13...) | HRP |
| Goat Anti Mouse IgG (Fc) (STAR120...) | FITC, HRP |
| Rabbit Anti Mouse IgG (STAR9...) | FITC |
| Goat Anti Mouse IgG (STAR77...) | HRP |
| Goat Anti Mouse IgG (H/L) (STAR117...) | Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP |

## Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)


**North & South America** Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com

**Worldwide** Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com

**Europe** Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com


To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M411091:221101'

**Printed on 10 Apr 2025**