

Datasheet: MCA1703

Description:	MOUSE ANTI p53 (aa20-25)
Specificity:	p53 (aa20-25)
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	DO-7
Isotype:	IgG2b
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 (1)	■			1/50 - 1/100
Immunohistology - Frozen	■			
Immunohistology - Paraffin (2)	■			1/1000
ELISA			■	
Immunoprecipitation	■			
Western Blotting	■			1/1000

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1) **Membrane permeabilization is required for this application. Bio-Rad recommend the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

(2) **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
Species Cross Reactivity	Reacts with: Bovine Does not react with: Mouse, Rat N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant human p53.
External Database Links	UniProt: P04637 Related reagents Entrez Gene: 7157 TP53 Related reagents
Synonyms	P53
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63Ag8.653 myeloma cell line.
Specificity	Mouse anti p53 antibody, clone DO-7 recognizes the human 53 kDa p53 tumour suppressor protein, also known as Cellular tumor antigen p53 or Antigen NY-CO-13, encoded by the TP53 gene. p53 is a 393 amino acid protein with an N-terminal transactivation domain, followed by a proline-rich region and a DNA binding domain in the central core region. The C-terminal region contains a tetramerization domain and a terminal regulatory domain (Joerger et al. 2010, Bai et al. 2006). p53 is intimately involved in a number of signaling pathways controlling cell division, cycling and apoptosis (Haupt et al. 2003) and is thus a potent cancer suppressor. In normal cells the level of p53 expression is low but can be induced by DNA damage or other stress signals (Takagi et al. 2005). Activation of p53 leads to growth arrest through its interaction with p21, GADD45 and 14-3-3σ, DNA repair and potentially apoptosis through interaction with Bax, Apaf-1, PUMA and NoxA (Thakur et al. 2010). p53 is critically regulated by Mdm2 which can trigger p53 degradation by a ubiquitin dependent system (Moll and Petrenko 2003) Mouse anti p53 antibody, clone DO-7 recognizes an epitope at the N-terminal end of p53 between amino acids 20-25, binding to both wild type and mutant forms. Clone DO-7 is not expected to recognize the multiple isoforms lacking the N-terminal region.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
Histology Positive Control Tissue	Colon or breast carcinoma
References	1. Vojtesek, B. <i>et al.</i> (1992) An immunochemical analysis of the human nuclear phosphoprotein p53. New monoclonal antibodies and epitope mapping using recombinant p53. J. Immunol. Methods 151: 237-24 2. Bonsing, B. A. <i>et al</i> (1997) Specificity of seven monoclonal antibodies against p53 evaluated with Western blotting, immunohistochemistry, confocal laser scanning microscopy, and flow cytometry. Cytometry. 28:11-24. 3. Huang, H.Y. <i>et al.</i> (2008) Immunohistochemical and biogenetic features of diffuse-type tenosynovial giant cell tumors: the potential roles of cyclin A, P53, and deletion of 15q in sarcomatous transformation. Clin Cancer Res. 14: 6023-32. 4. Iannone, F. <i>et al.</i> (2005) Increased Bcl-2/p53 ratio in human osteoarthritic cartilage: a possible

role in regulation of chondrocyte metabolism. [Ann Rheum Dis. 64: 217-21.](#)

5. Xinarianos, G. *et al.* (2002) p53 status correlates with the differential expression of the DNA mismatch repair protein MSH2 in non-small cell lung carcinoma. [Int J Cancer. 101: 248-52.](#)

6. Lin, L.C. *et al.* (20006) p53 and p27 as predictors of clinical outcome for rectal-cancer patients receiving neoadjuvant therapy. [Surg Oncol. 15: 211-6.](#)

Storage	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG2b (HCA038...)	FITC , HRP

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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
----------------------------------	---	------------------	---	---------------	---

'M315364:180503'

Printed on 05 May 2018