



Mouse Anti-Cynomolgus p53 monoclonal antibody, clone NN17 (CABT-ZB993)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	It reacts with Cynomolgus p53 It has no cross-reactivity in ELISA with E.coli cell lysate
Target	TP53
Immunogen	Recombinant Cynomolgus p53/TP53 protein
Isotype	IgG
Source/Host	Mouse
Species Reactivity	Cynomolgus
Clone	NN17
Purification	Protein A purified
Conjugate	Unconjugated
Applications	WB, ELISA, ELISA(det) We recommend the following for sandwich ELISA (Capture - Detection): CABT-ZB653 - CABT-ZB993 This antibody will detect p53 in antibody pair set. [ABPR-ZB232]
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Cynomolgus p53 / TP53. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	Purified, Liquid

Concentration	Lot specific
Size	50 µL, 100 µL, 200 µL, 1 mL
Buffer	PBS
Preservative	None
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Ship	Wet ice

BACKGROUND

Introduction

p53, also known as Tp53, is a DNA-binding protein which belongs to the p53 family. It contains transcription activation, DNA-binding, and oligomerization domains. p53 protein is expressed at low level in normal cells and at a high level in a variety of transformed cell lines, where it's believed to contribute to transformation and malignancy. p53 (TP53) is a transcription factor whose protein levels and post-translational modification state alter in response to cellular stress (such as DNA damage, hypoxia, spindle damage). Activation of p53 begins through a number of mechanisms including phosphorylation by ATM, ATR, Chk1 and MAPKs. MDM2 is a ubiquitin ligase that binds p53 and targets p53 for proteasomal degradation. Phosphorylation, p14ARF and USP7 prevent MDM2-p53 interactions, leading to an increase in stable p53 tetramers in the cytoplasm. Further modifications such as methylation and acetylation lead to an increase in Tp53 binding to gene specific response elements. Tp53 regulates a large number of genes (>100 genes) that control a number of key tumor suppressing functions such as cell cycle arrest, DNA repair, senescence and apoptosis. Whilst the activation of p53 often leads to apoptosis, p53 inactivation facilitates tumor progression. It is postulated to bind to a p53-binding site and activate expression of downstream genes that inhibit growth and/or invasion, and thus function as a tumor suppressor. Mutants of p53 that frequently occur in a number of different human cancers fail to bind the consensus DNA binding site, and hence cause the loss of tumor suppressor activity. Defects in TP53 are a cause of esophageal cancer, Li-Fraumeni syndrome, lung cancer and adrenocortical carcinoma.

Keywords	TP53; tumor protein p53; P53; BCC7
-----------------	------------------------------------

GENE INFORMATION

Synonyms

TP53; tumor protein p53; P53; BCC7; LFS1; TRP53; cellular tumor antigen p53; antigen NY-CO-13; tumor protein 53; phosphoprotein p53; p53 tumor suppressor; mutant tumor protein 53; transformation-related protein 53