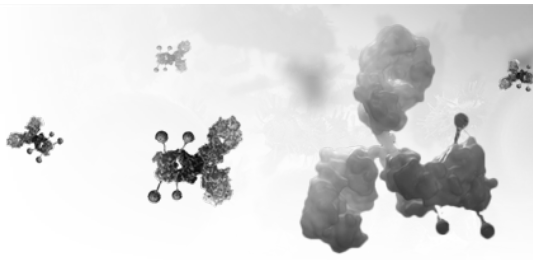

Rat Anti-Tp53 monoclonal antibody, clone QPF427B/F0 (CABT-RM128)

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

PRODUCT INFORMATION

Specificity	Detects murine p53.
Target	Tp53
Immunogen	GST/His-tagged full-length recombinant mouse p53 protein.
Isotype	IgG2a, κ
Source/Host	Rat
Species Reactivity	Mouse
Clone	QPF427B/F0
Purification	Protein G purified
Conjugate	unconjugated
Applications	IHC
Molecular Weight	43.46 kDa calculated.
Format	Liquid
Size	100 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl
Preservative	0.05% sodium azide
Storage	Stable for 1 year at 2-8°C from date of receipt.

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BACKGROUND

Introduction	Cellular tumor antigen p53 is encoded by the Tp53 gene in murine species. p53, a well-conserved phosphoprotein, is one of the best known tumor suppressors. Human p53 consists of 393 amino acids assembled into five structurally and functionally different domains. It acts as a sequence-specific nuclear transcription factor that binds to defined consensus sites within DNA as a tetramer and represses transcription of a set of genes involved in cell growth stimulation, while activating a different set of genes involved in cell cycle control. It causes growth arrest before either DNA replication thereby providing a window for DNA repair or elimination of cells with severely damaged DNA strands. In some cell types, however, p53 activation results in apoptosis as a means of eliminating severely damaged cells. In normal, non-activated cells, the p53 signaling network is not active. However, p53 signaling is activated in cells as a response to various signals that take place during the carcinogenic process. Carcinogen-induced DNA damage, abnormal proliferative signals, hypoxia, and loss of cell adhesion are some of the most common signals that activate p53. The final outcome of p53 activation depends on many factors, and is mediated largely through the action of downstream effector genes transactivated by p53. In unstressed cells, p53 is latent and is maintained at low levels by targeted, ubiquitin-mediated degradation mediated by MDM2 and many other ubiquitin ligases. MDM2 functions as an E3 ligase to ubiquitinate p53 and force its export from the nucleus to the cytoplasm, where p53 is degraded by the proteasome.
Keywords	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

GENE INFORMATION

Entrez Gene ID	22059
UniProt ID	P02340

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