10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

p53RFP Polyclonal Antibody

Catalog # AP71727

Product Information

Application	WB, E
Primary Accession	Q7Z419
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33697

Additional Information

Gene ID	255488
Other Names	RNF144B; IBRDC2; P53RFP; E3 ubiquitin-protein ligase RNF144B; IBR domain-containing protein 2; RING finger protein 144B; p53-inducible RING finger protein
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	RNF144B
Synonyms	IBRDC2, P53RFP
Function	E3 ubiquitin-protein ligase which accepts ubiquitin from E2 ubiquitin-conjugating enzymes UBE2L3 and UBE2L6 in the form of a thioester and then directly transfers the ubiquitin to targeted substrates such as LCMT2, thereby promoting their degradation. Induces apoptosis via a p53/TP53-dependent but caspase-independent mechanism. Plays a crucial role in maintaining the genomic stability by controlling the degradation of multiple proteins involved in mitotic progression and DNA damage (PubMed:38685100). Regulates epithelial homeostasis by mediating degradation of CDKN1A and isoform 2 of TP63 (PubMed:23128396). Plays a regulatory role in innate immunity by negatively regulating IRF3 activation and IFN-beta production. Mechanistically, inhibits TBK1 phosphorylation and 'Lys-63'-linked polyubiquitination independently of its E3 ligase activity (PubMed:31509299). Alternatively, promotes 'Lys-27' and 'Lys-33'-linked ubiquitination of IFIH1/MDA5, promoting selective autophagic degradation of

IFIH1/MDA5 to inhibit antiviral response (PubMed:39285245).

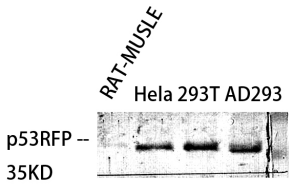
Cellular Location Mitochondrion membrane; Single-pass membrane protein. Cytoplasm. Note=Mostly cytosololic, accumulates in submitochondrial domains specifically upon apoptosis induction, in synchrony with BAX activation

Tissue Location Broadly expressed, with lowest levels in brain and thymus, and highest levels detectable in heart, ovary and testis

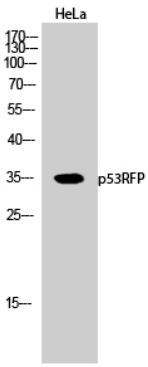
Background

E3 ubiquitin-protein ligase which accepts ubiquitin from E2 ubiquitin-conjugating enzymes UBE2L3 and UBE2L6 in the form of a thioester and then directly transfers the ubiquitin to targeted substrates such as LCMT2, thereby promoting their degradation. Induces apoptosis via a p53/TP53-dependent but caspase-independent mechanism. However, its overexpression also produces a decrease of the ubiquitin-dependent stability of BAX, a pro-apoptotic protein, ultimately leading to protection of cell death; But, it is not an anti-apoptotic protein per se.

Images



Western Blot analysis of various cells using p53RFP Polyclonal Antibody



Western Blot analysis of HeLa cells using p53RFP Polyclonal Antibody