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p53DINP1 Antibody

Catalog # ASC10177

Product Information

Application	WB, E, IHC-P
Primary Accession	Q96A56
Other Accession	Q96A56, 61216823
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	27366
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	p53DINP1 antibody can be used for detection of p53DINP1 by Western blot at 0.5 - 1 □g/mL. Antibody can also be used for immunohistochemistry starting at 2 □g/mL.

Additional Information

Gene ID	94241
Other Names	p53DINP1 Antibody: SIP, Teap, p53DINP1, TP53DINP1, TP53INP1A, TP53INP1B, P53DINP1, SIP, Tumor protein p53-inducible nuclear protein 1, Stress-induced protein, tumor protein p53 inducible nuclear protein 1
Target/Specificity	TP53INP1; At least two isoforms of p53DINP1 are known to exist; this antibody will detect both isoforms.
Reconstitution & Storage	p53DINP1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	p53DINP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TP53INP1
Synonyms	P53DINP1, SIP
Function	Antiproliferative and proapoptotic protein involved in cell stress response which acts as a dual regulator of transcription and autophagy. Acts as a positive regulator of autophagy. In response to cellular stress or activation of autophagy, relocates to autophagosomes where it interacts with autophagosome-associated proteins GABARAP, GABARAPL1/L2,

	MAP1LC3A/B/C and regulates autophagy. Acts as an antioxidant and plays a major role in p53/TP53-driven oxidative stress response. Possesses both a p53/TP53-independent intracellular reactive oxygen species (ROS) regulatory function and a p53/TP53-dependent transcription regulatory function. Positively regulates p53/TP53 and p73/TP73 and stimulates their capacity to induce apoptosis and regulate cell cycle. In response to double-strand DNA breaks, promotes p53/TP53 phosphorylation on 'Ser-46' and subsequent apoptosis. Acts as a tumor suppressor by inducing cell death by an autophagy and caspase-dependent mechanism. Can reduce cell migration by regulating the expression of SPARC.
Cellular Location	Cytoplasm, cytosol. Nucleus. Nucleus, PML body. Cytoplasmic vesicle, autophagosome. Note=Shuttles between the nucleus and the cytoplasm, depending on cellular stress conditions, and re- localizes to autophagosomes on autophagy activation
Tissue Location	Ubiquitously expressed.

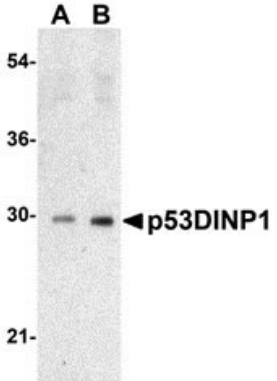
Background

p53DINP1 Antibody: Apoptosis is related to many diseases and development. The p53 tumor-suppressor protein induces apoptosis through transcriptional activation of several genes. A novel p53 inducible gene was identified recently and designated p53DINP1 (for p53-dependent damage-inducible nuclear protein 1) and SIP (for stress induced protein) in human and mouse. A p53DINP1 antisense oligonucleotide inhibits and overexpression of p53DINP1 enhances Ser46 phosphorylation of p53, induction of p53AIP1, and cell death induced by DNA double-strand breaks. p53DINP1 may regulate p53-dependent apoptosis through phosphorylation at Ser46 and induction of p53AIP1. The p53DINP1/SIP gene encodes two proteins of 27 and 18 kDa in human and mouse termed p53DINP1-alpha and p53DINP1-beta or SIP27 and SIP18. p53DINP1/SIP is expressed in many tissues and induced by a variety of stress agents including UV stress, mutagenic stress, heat shock, and oxidative stress.

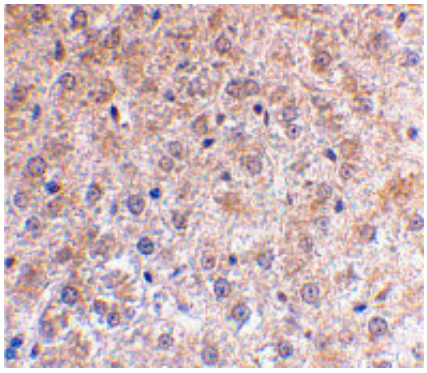
References

Okamura S, Arakawa H, Tanaka T, et al. p53DINP1, a p53-inducible gene, regulates p53-dependent apoptosis. Mol. Cell. 2001; 8:85-94.
Tomasini R, Samir AA, Vaccaro MI, et al. Molecular and functional characterization of the stress-induced protein (SIP) gene and its two transcripts generated by alternative splicing. SIP induced by stress and promotes cell death. J. Biol. Chem. 2001; 276:44185-92.

Images



Western blot analysis of p53DINP1 expression in human lung tissue lysate with p53DINP1 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemical staining of mouse liver using p53DINP1 antibody at 2 µg/mL.