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Rabbit Anti-Tp73 protein Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52324

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9JJP2
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	69096
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse P73 protein
Epitope Specificity	501-631/631
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Note=Accumulates in the nucleus in response to DNA damage.
SIMILARITY	Belongs to the p53 family. Contains 1 SAM (sterile alpha motif) domain.
SUBUNIT	Found in a complex with p53/TP53 and CABLES1. The C-terminal oligomerization domain binds to the ABL1 tyrosine kinase SH3 domain. Interacts with HECW2. Isoform Beta interacts homotypically and with p53/TP53, whereas isoform Alpha does not. Isoform Gamma interacts homotypically and with all p73 isoforms. Isoform Delta interacts with isoform Gamma, isoform Alpha, and homotypically. Isoforms Alpha and Beta interact with HIPK2. Isoform Alpha interacts with RANBP9. Isoform Beta interacts with WWOX. Interacts (via SAM domain) with FBXO45 (via B30.2/SPRY domain). Interacts with YAP1 (phosphorylated form). Interacts with HCK (via SH3 domain); this inhibits TP73 activity and degradation.
Post-translational modifications	Isoform alpha (but not isoform beta) is sumoylated on Lys-627, which potentiates proteasomal degradation but does not affect transcriptional activity. Phosphorylation by PLK1 and PLK3 inhibits the transcription regulator activity and pro-apoptotic function. Higher levels of phosphorylation seen in the brain from patients with Huntington disease. Polyubiquitinated by RCHY1/PIRH2; leading to its degradation by the proteasome.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the p53 family of transcription factors involved in cellular responses to stress and development. It maps to a region on chromosome 1p36 that is frequently deleted in neuroblastoma and other tumors, and thought to contain multiple tumor suppressor genes. The demonstration that this gene is monoallelically expressed (likely from the maternal allele), supports the notion that it is a candidate gene for neuroblastoma. Many transcript variants resulting from alternative splicing and/or use of alternate promoters have been found for this gene, but the biological validity and the full-length nature of some variants have not been determined. [provided by RefSeq, Feb 2011].

Additional Information

Gene ID	22062
Other Names	p73; Tp73; TAp73; Tumor protein p73; p53-like transcription factor; p53-related protein; Trp73
Target/Specificity	Expressed in striatal neurons of patients with Huntington disease (at protein level). Brain, kidney, placenta, colon, heart, liver, spleen, skeletal muscle, prostate, thymus and pancreas. Highly expressed in fetal tissue.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Tp73
Function	Participates in the apoptotic response to DNA damage. Isoforms containing the transactivation domain are pro-apoptotic, isoforms lacking the domain are anti-apoptotic and block the function of p53 and transactivating p73 isoforms. May be a tumor suppressor protein. Is an activator of FOXJ1 expression, essential for the positive regulation of lung ciliated cell differentiation (PubMed:26947080).
Cellular Location	Nucleus. Cytoplasm. Note=Accumulates in the nucleus in response to DNA damage.
Tissue Location	Found in striatal neurons of mutant huntingtin (htt) transgenic mice (at protein level). Isoform 1 is expressed in the nasal epithelium, the vomeronasal organ, the hippocampus and the hypothalamus.

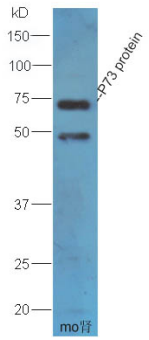
Background

Participates in the apoptotic response to DNA damage. Isoforms containing the transactivation domain are pro-apoptotic, isoforms lacking the domain are anti-apoptotic and block the function of p53 and transactivating p73 isoforms. May be a tumor suppressor protein.

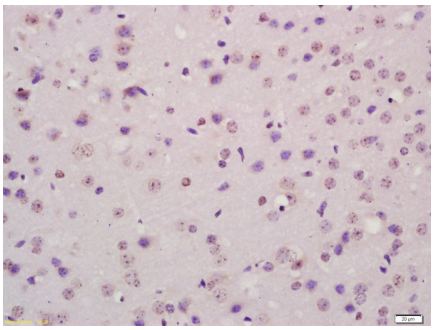
References

Yang A.,et al.Nature 404:99-103(2000).
Carninci P.,et al.Science 309:1559-1563(2005).
Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Herranz M.,et al.Cancer Res. 59:2068-2071(1999).

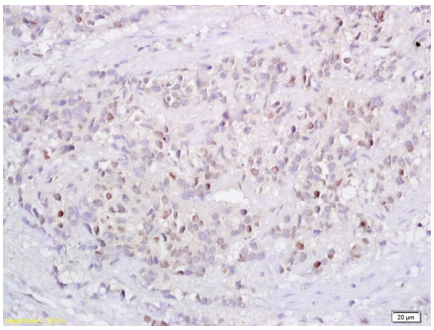
Images



Mouse Kidney lysates probed with Rabbit Anti-Tp73 Polyclonal Antibody, Unconjugated (AP52324) at 1:300 overnight at 4˚C. Incubate with HRP conjugated Goat-Anti-Rabbit IgG at 1: 5000 for 90min at 37˚C.



Formalin-fixed and paraffin embedded mouse brain labeled with Rabbit Anti-P73 protein Polyclonal Antibody, Unconjugated (AP52324) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Formalin-fixed and paraffin embedded human endometrium tissue labeled with Anti-P73 Polyclonal Antibody, Unconjugated (AP52324) followed by conjugation to the secondary antibody and DAB staining