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ITPA Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4942A

Product Information

Application	IHC-P, FC, IF, WB, E
Primary Accession	Q9BY32
Other Accession	Q2NLA8, D3ZW55, Q9D892, F1NLH9, Q2KIC5
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Chicken, Mouse, Rat, Xenopus, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22150
Calculated MW	21446
Antigen Region	24-51

Additional Information

Gene ID	3704
Other Names	Inosine triphosphate pyrophosphatase {ECO:0000255|HAMAP-Rule:MF_03148}, ITPase {ECO:0000255|HAMAP-Rule:MF_03148}, Inosine triphosphatase {ECO:0000255|HAMAP-Rule:MF_03148}, 36119 {ECO:0000255|HAMAP-Rule:MF_03148}, Non-canonical purine NTP pyrophosphatase {ECO:0000255|HAMAP-Rule:MF_03148}, Non-standard purine NTP pyrophosphatase {ECO:0000255|HAMAP-Rule:MF_03148}, Nucleoside-triphosphate diphosphatase {ECO:0000255|HAMAP-Rule:MF_03148}, Nucleoside-triphosphate pyrophosphatase {ECO:0000255|HAMAP-Rule:MF_03148}, NTPase {ECO:0000255|HAMAP-Rule:MF_03148}, Putative oncogene protein hlc14-06-p, ITPA {ECO:0000255|HAMAP-Rule:MF_03148}, C20orf37
Target/Specificity	This ITPA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 24-51 amino acids from the N-terminal region of human ITPA.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 IF~~1:25 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions	ITPA Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ITPA {ECO:0000255|HAMAP-Rule:MF_03148}
Synonyms	C20orf37
Function	Pyrophosphatase that hydrolyzes the non-canonical purine nucleotides inosine triphosphate (ITP), deoxyinosine triphosphate (dITP) as well as 2'-deoxy-N-6-hydroxylaminopurine triphosphate (dHAPTP) and xanthosine 5'-triphosphate (XTP) to their respective monophosphate derivatives. The enzyme does not distinguish between the deoxy- and ribose forms. Probably excludes non-canonical purines from RNA and DNA precursor pools, thus preventing their incorporation into RNA and DNA and avoiding chromosomal lesions.
Cellular Location	Cytoplasm {ECO:0000255|HAMAP-Rule:MF_03148, ECO:0000269|PubMed:11278832}
Tissue Location	Ubiquitous. Highly expressed in heart, liver, sex glands, thyroid and adrenal gland

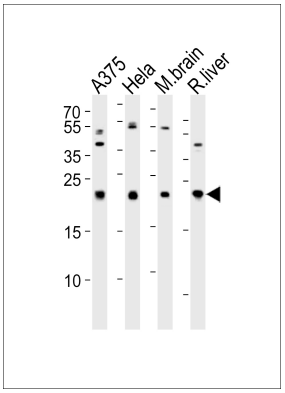
Background

ITPA hydrolyzes inosine triphosphate and deoxyinosine triphosphate to the monophosphate nucleotide and diphosphate. The encoded protein, which is a member of the HAM1 NTPase protein family, is found in the cytoplasm and acts as a homodimer. Defects in the encoded protein can result in inosine triphosphate pyrophosphorylase deficiency. Two transcript variants encoding two different isoforms have been found for this gene.

References

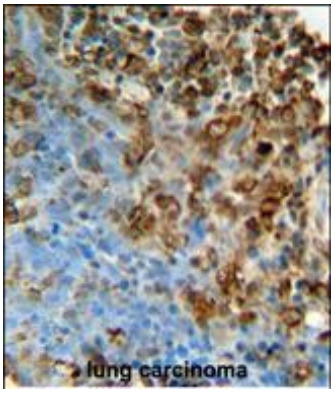
Fellay, J., et al. Nature 464(7287):405-408(2010)
Herting, G., et al. Biochim. Biophys. Acta 1802(2):269-274(2010)
Kudo, M., et al. Drug Metab. Pharmacokinet. 24(6):557-564(2009)

Images

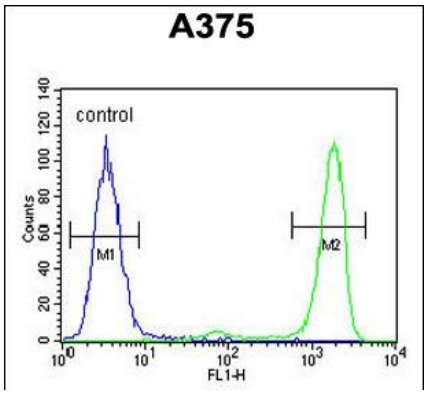


Western blot analysis of lysates from A375, Hela cell line, mouse brain and rat liver tissue lysate(from left to right), using ITPA Antibody (N-term)(Cat. #AP4942a). AP4942a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

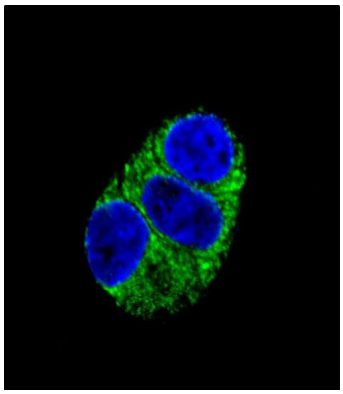
ITPA Antibody (N-term) (Cat. #AP4942a)



immunohistochemistry analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ITPA Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



ITPA Antibody (N-term) (Cat. #AP4942a) flow cytometric analysis of A375 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of ITPA Antibody (N-term)(Cat#AP4942a) with HepG2 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.