

For Research Use Only

# ISYNA1 Polyclonal antibody

Catalog Number: 14142-1-AP

5 Publications



## Basic Information

<b>Catalog Number:</b> 14142-1-AP	<b>GenBank Accession Number:</b> BC066902	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 600 ug/ml by Nanodrop and 233 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 51477	<b>Recommended Dilutions:</b> WB 1:1000-1:6000
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q9NPH2	<b>IHC 1:20-1:200</b>
<b>Isotype:</b> IgG	<b>Full Name:</b> inositol-3-phosphate synthase 1	<b>IF/ICC 1:20-1:200</b>
<b>Immunogen Catalog Number:</b> AG5272	<b>Calculated MW:</b> 61 kDa	
	<b>Observed MW:</b> 61 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB, IF	<b>WB :</b> mouse testis tissue, HepG2 cells, rat testis tissue
<b>Species Specificity:</b> human, mouse, rat	<b>IHC :</b> human pancreas cancer tissue,
<b>Cited Species:</b> mouse, rat	<b>IF/ICC :</b> HepG2 cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

Myo-inositol 3-phosphate synthase (ISYNA1/IP synthase) is a rate-limiting enzyme that catalyzes the first step in the biosynthesis of all inositol containing compounds. It converts glucose 6-phosphate to Myo-inositol 3-phosphate. (PMID:21841945). The native enzyme is typically a homotrimer made up of 68-kDa subunits in mammalian cells and a homotetramer in yeast and plant cells. There are three new isoforms of 62, 43, and 16kDa detected suggesting ISYNA1 is a completely different holoenzyme. But only the brain and testis manifest the 68-kDa isoform, whereas the pancreas has a slightly smaller isoform at 67 kDa. The intestine has a completely unique isoform profile comprising 62, 43, 20kDa isoforms (PMID:19188364).

## Notable Publications

Author	Pubmed ID	Journal	Application
Keke Yu	25346504	Alcohol Clin Exp Res	WB, IF
Jian-Yi Dong	33268823	Acta Pharmacol Sin	WB
Jianyi Dong	34504431	Front Pharmacol	WB

## Storage

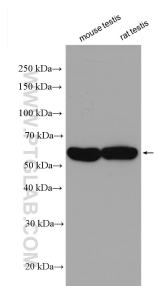
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

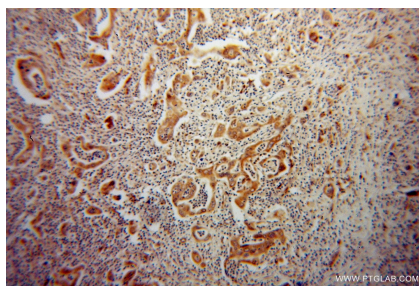
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

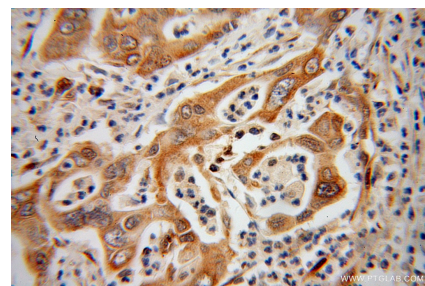
## Selected Validation Data



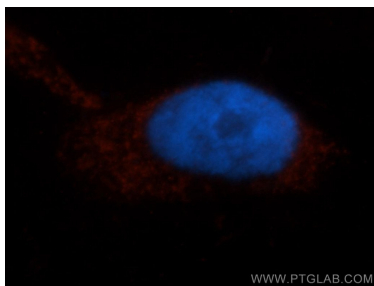
mouse testis tissue were subjected to SDS PAGE followed by western blot with 14142-1-AP (ISYNA1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human pancreas cancer using 14142-1-AP (ISYNA1 antibody) at dilution of 1:100 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human pancreas cancer using 14142-1-AP (ISYNA1 antibody) at dilution of 1:100 (under 40x lens).



Immunofluorescent analysis of HepG2 cells, using ISYNA1 antibody 14142-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).