

For Research Use Only

TIMM44 Polyclonal antibody

Catalog Number: 13859-1-AP

Featured Product

27 Publications



Basic Information

Catalog Number:

13859-1-AP

Size:

150ul, Concentration: 800 ug/ml by Nanodrop and 287 ug/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG4834

GenBank Accession Number:

BC033628

GeneID (NCBI):

10469

UNIPROT ID:

O43615

Full Name:

translocase of inner mitochondrial membrane 44 homolog (yeast)

Calculated MW:

452 aa, 51 kDa

Observed MW:

45 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:1000-1:6000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:250-1:1000

IF/ICC: 1:400-1:1600

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IF, IP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

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

Positive Controls:

WB: HeLa cells, Neuro-2a cells, C6 cells, Jurkat cells

IP: HeLa cells, mouse heart tissue

IHC: human liver tissue,

IF/ICC: HepG2 cells,

Background Information

Translocase of inner mitochondrial membrane 44 (TIMM44), also known as MIMT44 and TIM44, belongs to the Tim44 family. TIMM44 is a mitochondrial protein located at the inner mitochondrial membrane, which is crucial for the integrity and function of mitochondria. In an ATP-dependent manner, TIMM44 anchors mitochondrial heat shock protein 70 to the translocase of the mitochondrial inner membrane 23 (TIMM23) complex. TIMM44 is essential for mitochondrial pre-protein import into the mitochondrial matrix. TIMM44 is vital for the integrity and function of mitochondria. TIMM44 silencing disrupted mitochondrial functions in endothelial cells, causing mitochondrial protein import arrest, ATP reduction, ROS production, and mitochondrial depolarization, and leading to apoptosis activation (PMID: 36438483, PMID: 37147302, PMID: 38467612). The observed molecular weight of TIMM44 is 45 kDa, indicating a mature form of TIMM44 (PMID: 33891006).

Notable Publications

Author	Pubmed ID	Journal	Application
Jonas Benjamin Michaelis	36056001	Nat Commun	WB
Ricarda Richter-Dennerlein	27693358	Cell	WB
Marcel Morgenstern	34800366	Cell Metab	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

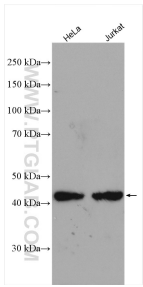
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

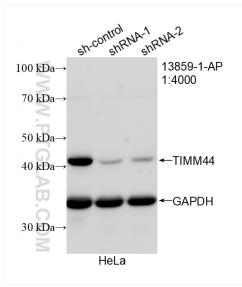
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

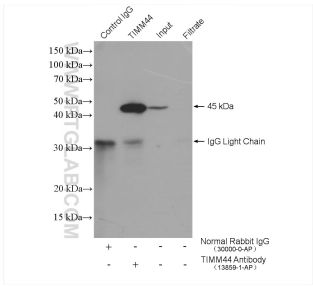
Selected Validation Data



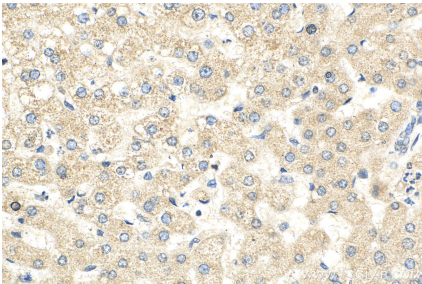
Various lysates were subjected to SDS PAGE followed by western blot with 13859-1-AP (TIMM44 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



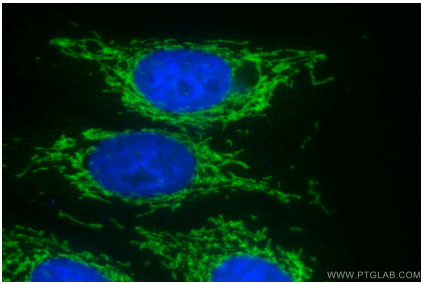
WB result of TIMM44 antibody (13859-1-AP; 1:4000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TIMM44 transfected HeLa cells.



IP result of anti-TIMM44 (IP:13859-1-AP, 4ug; Detection:13859-1-AP 1:1000) with HeLa cells lysate 1280 ug.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 13859-1-AP (TIMM44 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using TIMM44 antibody (13859-1-AP) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).