

For Research Use Only

TIMM44 Monoclonal antibody

Catalog Number: 66149-1-Ig **Featured Product**



Basic Information

Catalog Number: 66149-1-Ig	GenBank Accession Number: BC033628	Purification Method: Protein A purification
Size: 150ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 10469	CloneNo.: 4G7D4
Source: Mouse	UNIPROT ID: O43615	Recommended Dilutions: WB 1:5000-1:50000 IHC 1:250-1:1000 IF/ICC 1:200-1:800
Isotype: IgG2c	Full Name: translocase of inner mitochondrial membrane 44 homolog (yeast)	
Immunogen Catalog Number: AG21389	Calculated MW: 452 aa, 51 kDa	
	Observed MW: 45 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Species Specificity:
human, mouse, rat, pig, rabbit

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: LNCaP cells, HeLa cells, HepG2 cells, Jurkat cells, K-562 cells, HSC-T6 cells, NIH/3T3 cells, pig heart tissue, rabbit 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).

Storage

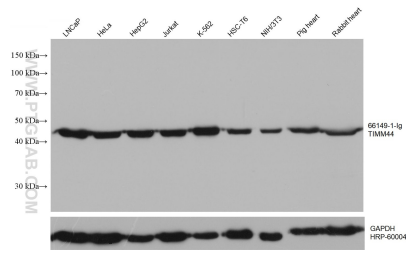
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

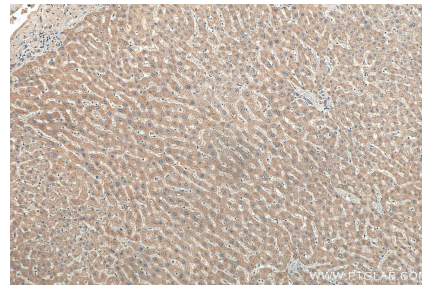
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA) E: proteintech@ptglab.com
W: ptglab.com

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

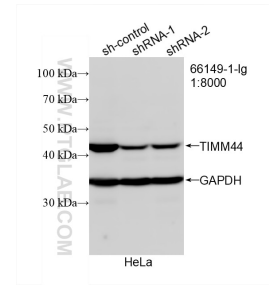
Selected Validation Data



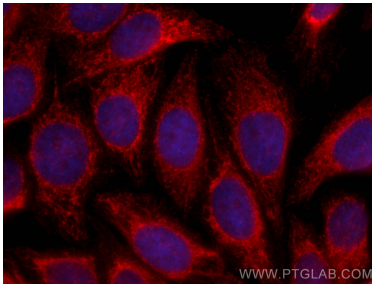
Various lysates were subjected to SDS PAGE followed by western blot with 66149-1-Ig (TIMM44 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 66149-1-Ig (TIMM44 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



WB result of TIMM44 antibody (66149-1-Ig; 1:8000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TIMM44 transfected HeLa cells.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using TIMM44 antibody (66149-1-Ig, Clone: 4G7D4) at dilution of 1:400 and CoraLite®594-Conjugated Goat Anti-Mouse IgG(H+L).