

TIMM44 Monoclonal antibody

Catalog Number: 66149-1-Ig

Featured Product

Basic Information

Catalog Number:

66149-1-Ig

Concentration:

1000 ug/ml

Source:

Mouse

Isotype:

IgG2c

Immunogen Catalog Number:

AG21389

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:

Protein A purification

CloneNo.:

4G7D4

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:250-1:1000

IF/ICC 1:200-1:800

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, pH7.3

Aliquoting is unnecessary for -20°C storage

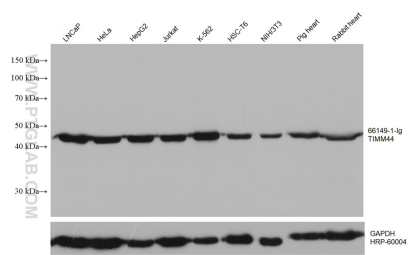
For technical support and original validation data for this product please contact:

T: 4006900926

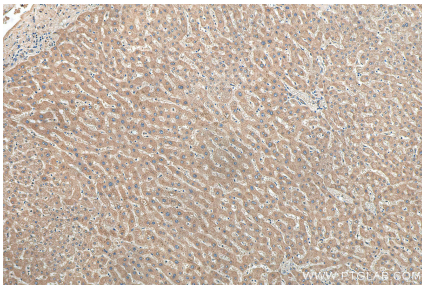
E: Proteintech-CN@ptglab.comW: ptgcn.com

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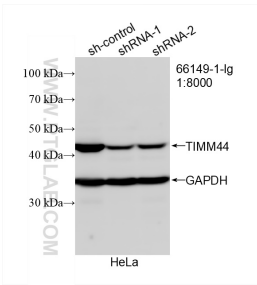
Selected Validation Data



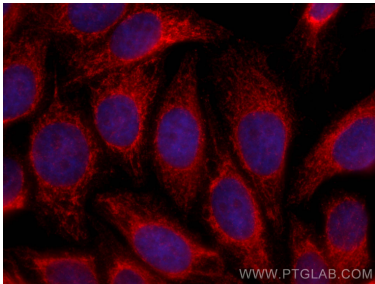
Various lysates were subjected to SDS PAGE followed by western blot with 66149-1-Ig (TIMM44 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



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 AffiniPure Goat Anti-Mouse IgG(H+L).