

For Research Use Only

TIMM44 Recombinant antibody

Catalog Number: 85134-6-RR



Basic Information

Catalog Number:

85134-6-RR

Size:

100ul, Concentration: 1000 µg/ml by Nanodrop;

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:

Protein A purification

CloneNo.:

242774F9

Recommended Dilutions:

WB: 1:5000-1:50000

IF/ICC: 1:1000-1:4000

FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IF/ICC, FC (Intra), ELISA

Species Specificity:

human, mouse, rat

Positive Controls:

WB: HeLa cells, HepG2 cells, Jurkat cells, A431 cells, C6 cells, NIH/3T3 cells, Neuro-2a cells

IF/ICC: HepG2 cells,

FC (Intra): 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 input 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

*** 20ul sizes contain 0.1% BSA

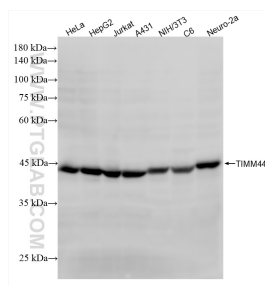
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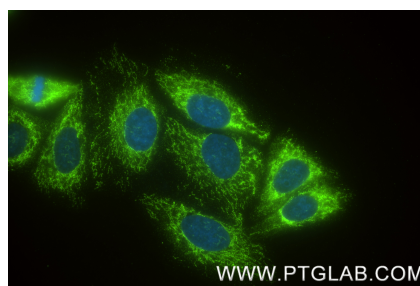
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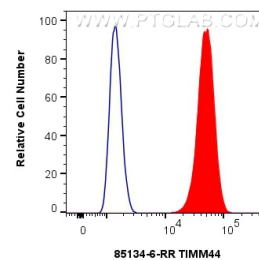
Selected Validation Data



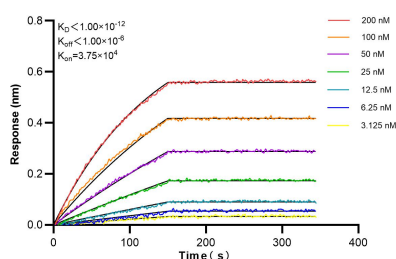
Various lysates were subjected to SDS PAGE followed by western blot with 85134-6-RR (TIMM44 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using TIMM44 antibody (85134-6-RR, Clone: 242774F9) at dilution of 1:2000 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



1x10⁶ HepG2 cells were intracellularly stained with 0.25 ug Timm44 Recombinant Antibody (85134-6-RR, Clone:242774F9) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.25 ug Rabbit IgG Isotype Control RecAb (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 85134-6-RR against Human TIMM44 were performed. The affinity constant is below 1 pM.