

For Research Use Only

# Sam50 Monoclonal antibody

Catalog Number: 67425-1-Ig



## Basic Information

<b>Catalog Number:</b> 67425-1-Ig	<b>GenBank Accession Number:</b> BC007830	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul , Concentration: 1700 µg/ml by Nanodrop and 1000 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 25813	<b>CloneNo.:</b> 2H6H9
<b>Source:</b> Mouse	<b>Full Name:</b> sorting and assembly machinery component 50 homolog (S. cerevisiae)	<b>Recommended Dilutions:</b> WB 1:1000-1:5000 IHC 1:50-1:500 IF 1:200-1:800
<b>Isotype:</b> IgG1	<b>Calculated MW:</b> 469 aa, 52 kDa	
<b>Immunogen Catalog Number:</b> AG15155	<b>Observed MW:</b> 52 kDa	

## Applications

### Tested Applications:

IF, IHC, WB, ELISA

### Species Specificity:

Human, Pig, Rat, Mouse

**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:** A375 cells, rabbit heart tissue, HSC-T6 cells, NIH/3T3 cells, pig heart tissue, rat heart tissue, mouse heart tissue

**IHC:** human liver cancer tissue, human heart tissue

**IF:** HeLa cells, HepG2 cells

## Background Information

Sam50, encoded by the SAMM50 gene, is an essential protein of the mitochondrial outer membrane (OMM). It contains a beta-barrel domain conserved from bacteria to man (PMID: 14570913). Sam50 is a part of the sorting and assembly machinery (SAM) necessary for the assembly of beta-barrel proteins in the OMM (PMID: 22252321). It is crucial for maintaining mitochondrial shape, morphology of mitochondrial cristae, and assembly of the mitochondrial respiratory chain complexes (PMID: 26587038; 22252321; 25781180). Polymorphisms in the SAMM50 gene have been associated with development and progression of nonalcoholic fatty liver disease (PMID: 23535911).

## 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

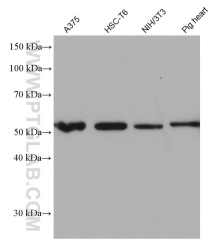
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free  
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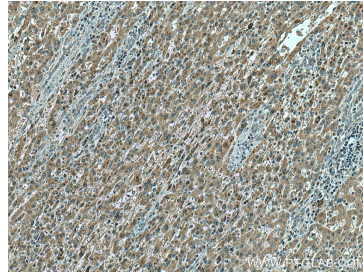
E: proteintech@ptglab.com  
W: ptglab.com

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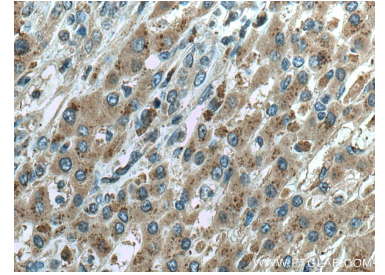
## Selected Validation Data



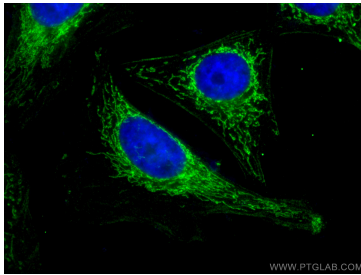
Various lysates were subjected to SDS PAGE followed by western blot with 67425-1-Ig (Sam50 antibody) at dilution of 1:2500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67425-1-Ig (SAMM50 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67425-1-Ig (SAMM50 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Sam50 antibody (67425-1-Ig, Clone: 2H6H9) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-Phalloidin (red).