

For Research Use Only

Sam50 Polyclonal antibody

Catalog Number: 28679-1-AP

4 Publications



Basic Information

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| Catalog Number: 28679-1-AP | GenBank Accession Number: BC007830 | Purification Method: Antigen affinity purification |
| Size: 150ul , Concentration: 900 ug/ml by Nanodrop and 400 ug/ml by Bradford method using BSA as the standard; | GeneID (NCBI): 25813 | Recommended Dilutions: WB 1:2000-1:16000 IHC 1:50-1:500 IF/ICC 1:50-1:500 |
| Source: Rabbit | UNIPROT ID: Q9Y512 | |
| Isotype: IgG | Full Name: sorting and assembly machinery component 50 homolog (S. cerevisiae) | |
| Immunogen Catalog Number: AG29152 | Calculated MW: 469 aa, 52 kDa | |
| | Observed MW: 52 kDa | |

Applications

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| Tested Applications: WB, IHC, IF/ICC, ELISA | Positive Controls: WB : A431 cells, HeLa cells, HepG2 cells, mouse heart tissue, rat heart tissue IHC : human heart tissue, human liver cancer tissue IF/ICC : HeLa cells, |
| 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 | |

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).

Notable Publications

| Author | Pubmed ID | Journal | Application |
|----------------|-----------|----------------------|-------------|
| Ran Xu | 34631840 | Front Cardiovasc Med | IF |
| Sofia Geroyska | 38949950 | Cancer Res Commun | WB |
| Yufei Zhou | 38723737 | Cell Signal | WB,IF,IP |

Storage

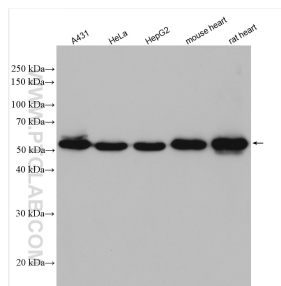
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

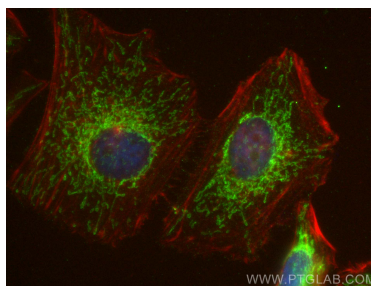
For technical support and original validation data for this product please contact:
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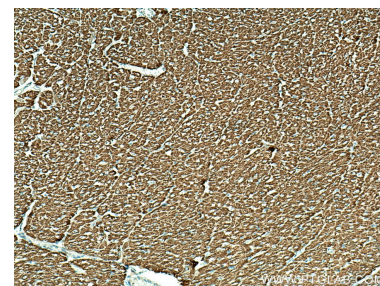
Selected Validation Data



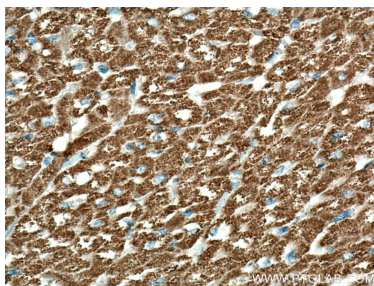
A431 cells were subjected to SDS PAGE followed by western blot with 28679-1-AP (SAMM50 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Sam50 antibody (28679-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red).



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 28679-1-AP (Sam50 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 heart tissue slide using 28679-1-AP (Sam50 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).