

MICS1 / GHITM Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF3095a**Specification**

MICS1 / GHITM Antibody (internal region) - Product Information

Application	WB
Primary Accession	Q9H3K2
Other Accession	NP_055209.2 , 27069 , 66092 (mouse) , 290596 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog, Cow
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	37205

MICS1 / GHITM Antibody (internal region) - Additional Information**Gene ID** 27069**Other Names**

Growth hormone-inducible transmembrane protein, Dermal papilla-derived protein 2, Mitochondrial morphology and cristae structure 1, MICS1, Transmembrane BAX inhibitor motif-containing protein 5, GHITM, DERP2, MICS1, TMBIM5

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

MICS1 / GHITM Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

MICS1 / GHITM Antibody (internal region) - Protein Information**Name** GHITM**Synonyms** DERP2, MICS1, TMBIM5**Function**

Plays an important role in maintenance of mitochondrial morphology and in mediating either calcium or potassium/proton antiport (PubMed:<a

[18417609](http://www.uniprot.org/citations/18417609), PubMed: [36321428](http://www.uniprot.org/citations/36321428), PubMed: [32977469](http://www.uniprot.org/citations/32977469), PubMed: [35912435](http://www.uniprot.org/citations/35912435)). Mediates proton-dependent calcium efflux from mitochondrion (PubMed: [36321428](http://www.uniprot.org/citations/36321428), PubMed: [35912435](http://www.uniprot.org/citations/35912435)). Functions also as an electroneutral mitochondrial proton/potassium exchanger (PubMed: [36321428](http://www.uniprot.org/citations/36321428)). Required for the mitochondrial tubular network and cristae organization (PubMed: [18417609](http://www.uniprot.org/citations/18417609), PubMed: [36321428](http://www.uniprot.org/citations/36321428), PubMed: [32977469](http://www.uniprot.org/citations/32977469)). Involved in apoptotic release of cytochrome c (PubMed: [18417609](http://www.uniprot.org/citations/18417609)). Inhibits the proteolytic activity of AFG3L2, stimulating respiration and stabilizing respiratory enzymes in actively respiring mitochondria (PubMed: [36321428](http://www.uniprot.org/citations/36321428)). However, when mitochondria become hyperpolarized, GHITM loses its inhibitory activity toward AFG3L2 and the now the active AFG3L2 turns first on GHITM and, if hyperpolarization persists, on other proteins of the mitochondria, leading to a broad remodeling of the mitochondrial proteome (PubMed: [36321428](http://www.uniprot.org/citations/36321428)).

Cellular Location

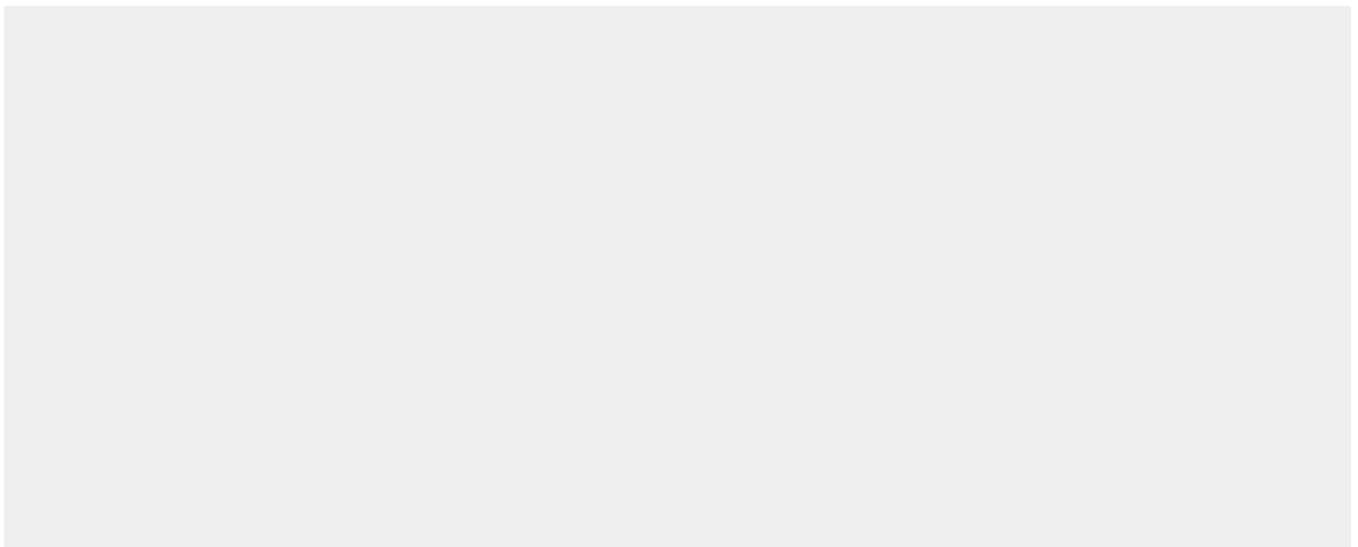
Mitochondrion inner membrane; Multi-pass membrane protein

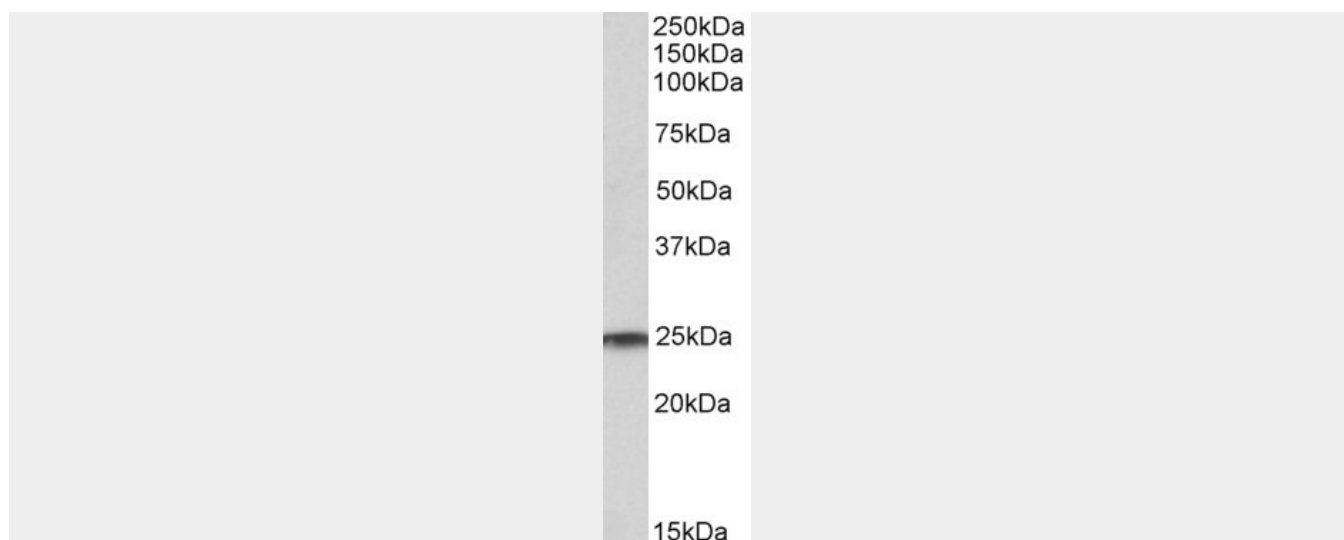
MICS1 / GHITM Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

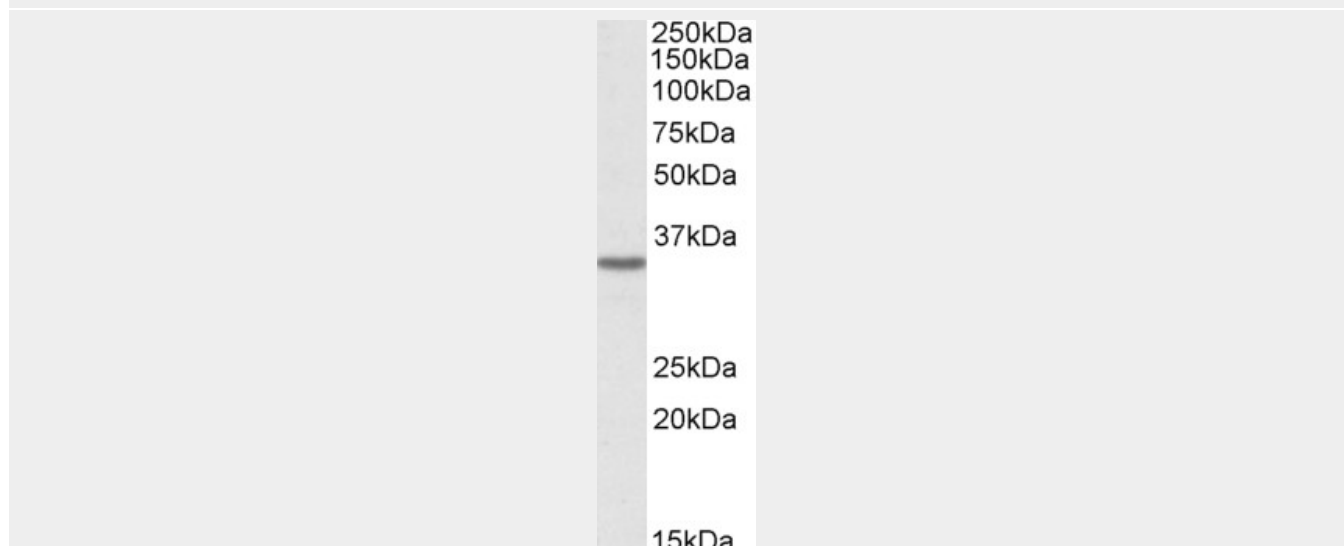
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MICS1 / GHITM Antibody (internal region) - Images





AF3095a (0.01 µg/ml) staining of Human Cerebellum (A), Duodenum (B) and Heart (C) cell lysates (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF3095a (0.3 µg/ml) staining of HeLa cell lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

MICS1 / GHITM Antibody (internal region) - References

Comparative genomics and function analysis on BIL family. Zhou J, Zhu T, Hu C, Li H, Chen G, Xu G, Wang S, Zhou J, Ma D, Computational biology and chemistry 2008 Jun 32 (3): 159-62. PMID: 18440869