10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GHITM Antibody

Catalog # AP53301

Product Information

Application	WB
Primary Accession	Q9H3K2
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	37205

Additional Information

Gene ID	27069
Other Names	DERP2; MICS1; TMBIM5; Growth hormone-inducible transmembrane protein; Dermal papilla-derived protein 2; Mitochondrial morphology and cristae structure 1; MICS1; Transmembrane BAX inhibitor motif-containing protein 5
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human GHITM. The exact sequence is proprietary.
Dilution	WB~~ 1:1000
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

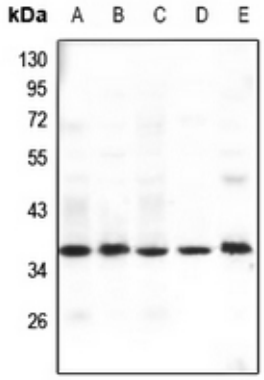
Name	GHITM
Synonyms	DERP2, MICS1, TMBIM5
Function	Plays an important role in maintenance of mitochondrial morphology and in mediating either calcium or potassium/proton antiport (PubMed:18417609, PubMed:32977469, PubMed:35912435, PubMed:36321428). Mediates proton-dependent calcium efflux from mitochondrion (PubMed:35912435, PubMed:36321428). Also functions as an electroneutral mitochondrial proton/potassium exchanger (PubMed:36321428). Required for the mitochondrial tubular network and cristae organization (PubMed:18417609, PubMed:32977469, PubMed:36321428). Involved in apoptotic release of cytochrome c (PubMed:18417609). Inhibits the proteolytic activity of AFG3L2, stimulating respiration and stabilizing respiratory enzymes in actively respiring mitochondria (PubMed: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).
Cellular Location	Mitochondrion inner membrane; Multi-pass membrane protein

References

Ikeda A.,et al.Submitted (DEC-1997) to the EMBL/GenBank/DDBJ databases.
Mei G.,et al.Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.
Mao Y.M.,et al.Submitted (APR-1998) to the EMBL/GenBank/DDBJ databases.
Wiemann S.,et al.Genome Res. 11:422-435(2001).
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).

Images



Western blot analysis of GHITM expression in SGC7901 (A), HCT116 (B), HepG2 (C), H9C2 (D), AML12 (E) whole cell lysates. (Predicted band size: 37 kD; Observed band size: 37 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.