

## Rabbit GHITM Polyclonal Antibody | anti-GHITM antibody

Anti-GHITM Antibody Picoband

| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                                                                                                         |
|-----------|--------|-------------------|----------------------------------------------------------------------------------------------------------------------|
| AAA19621  | Rabbit | Human, Mouse, Rat | Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA |

### PRODUCT SYNONYMS

GHITM; Polyclonal Antibody; Anti-GHITM Antibody Picoband; anti-GHITM antibody

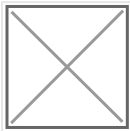
### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                          |
| Reactivity                                      | Human, Mouse, Rat                                                                                                                                                                                                                                                                                                                                                                                               |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                      |
| Isotype                                         | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                      |
| Purity/Purification                             | Immunogen affinity purified.                                                                                                                                                                                                                                                                                                                                                                                    |
| Form/Format                                     | Lyophilized<br>Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                                                                                                                                                                                                                        |
| Concentration                                   | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)                                                                                                                                                                                                                                                                                                                       |
| Applicable Applications for anti-GHITM antibody | WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA                                                                                                                                                                                                                                                                             |
| Application Notes                               | WB: 0.25-0.5 ug/ml, Human, Mouse, Rat<br>IHC-P: 2-5 ug/ml, Human, Rat<br>ICC/IF: 5 ug/ml, Human<br>FC/FACS: 1-3 ug/1x10 <sup>6</sup> cells, Human<br>Direct ELISA: 0.1-0.5 ug/ml, Human<br>Tested Species: In-house tested species with positive results.<br>Enhanced Chemiluminescent Kit with anti-Rabbit IgG for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit for IHC(P) and ICC. |
| Reconstitution                                  | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                                                                                                                                                                                                                                                                                                                                       |
| Immunogen                                       | E Coli-derived human GHITM recombinant protein (Position: M1-K345).                                                                                                                                                                                                                                                                                                                                             |
| Preparation and Storage                         | Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.                                                                                                                                                                                    |



IF (Immunofluorescence)

Figure 6. IF analysis of GHITM using anti-GHITM antibody (AAA19621).GHITM was detected in an immunocytochemical section of HEP3B cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-GHITM Antibody (AAA19621) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of GHITM using anti-GHITM antibody (AAA19621).GHITM was detected in a paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GHITM Antibody (AAA19621) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



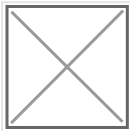
IHC (Immunohistochemistry)

Figure 2. IHC analysis of GHITM using anti-GHITM antibody (AAA19621).GHITM was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GHITM Antibody (AAA19621) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



FCM (Flow Cytometry)

Figure 5. Flow Cytometry analysis of A431 cells using anti-GHITM antibody (AAA19621).Overlay histogram showing A431 cells stained with AAA19621 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GHITM Antibody (AAA19621, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of GHITM using anti-GHITM antibody (AAA19621).GHITM was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-GHITM Antibody (AAA19621) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of GHITM using anti-GHITM antibody (AAA19621).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human HeLa whole cell lysates,Lane 2: human 293T whole cell lysates,Lane 3: human SH-SY5Y whole cell lysates,Lane 4: rat testis tissue lysates,Lane 5: mouse testis tissue lysates,Lane 6: mouse liver tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GHITM antigen affinity purified polyclonal antibody (#AAA19621) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GHITM at approximately 37 kDa. The expected band size for GHITM is at 37 kDa.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-GHITM antibody | Growth hormone-inducible transmembrane protein (GHITM), also known as transmembrane BAX inhibitor motif containing protein 5 (TMBIM5), is a protein that in humans is encoded by the GHITM gene on chromosome 10. GHITM, also known asMICS1, TMBIM5 orDERP2, is a mitochondrial protein which localizes in the inner membrane.GHITM is involved in mitochondrial morphology in specific cristae structures and the apoptotic release of cytochrome c from the mitochondria. The gene of GHITM maps to chromosome 10q23.1, and encodes a 345-amino-acid protein with a calculated molecular mass of 37 kDa. The apparent molecular weight has been reported to be 42 kDa, the increased size in the protein may be due to post-translational modifications. GHITM can be cleaved into smaller forms of 23-27 kDa. |
| Product Categories/Family for anti-GHITM antibody   | Primary Antibodies, Rabbit Polyclonal Antibodies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                                                                            |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 118200356                                                                                                                                                                                                                                  |
| NCBI GeneID                      | 27069                                                                                                                                                                                                                                      |
| NCBI Accession #                 | NP_055209.2                                                                                                                                                                                                                                |
| NCBI GenBank Nucleotide #        | NM_014394.2                                                                                                                                                                                                                                |
| UniProt Accession #              | Q9H3K2; O95894; Q5VT95; Q9H0P2; A8K9Z9; D3DWE0                                                                                                                                                                                             |
| Molecular Weight                 | 37,205 Da                                                                                                                                                                                                                                  |
| NCBI Official Full Name          | growth hormone-inducible transmembrane protein                                                                                                                                                                                             |
| NCBI Official Synonym Full Names | growth hormone inducible transmembrane protein                                                                                                                                                                                             |
| NCBI Official Symbol             | GHITM                                                                                                                                                                                                                                      |
| NCBI Official Synonym Symbols    | DERP2; MICS1; My021; PTD010; TMBIM5; HSPC282                                                                                                                                                                                               |
| NCBI Protein Information         | growth hormone-inducible transmembrane protein; dermal papilla-derived protein 2; transmembrane BAX inhibitor motif containing 5; mitochondrial morphology and cristae structure 1; transmembrane BAX inhibitor motif-containing protein 5 |
| UniProt Protein Name             | Growth hormone-inducible transmembrane protein                                                                                                                                                                                             |
| UniProt Gene Name                | GHITM                                                                                                                                                                                                                                      |
| UniProt Synonym Gene Names       | DERP2; MICS1; TMBIM5; MICS1                                                                                                                                                                                                                |
| UniProt Entry Name               | GHITM_HUMAN                                                                                                                                                                                                                                |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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