

#14108 Store at -20°C

GIMAP5 Antibody

**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|---------|-------------|-----------------|
| WB, IP | H | Endogenous | 30,32 | Rabbit | #Q96F15 | 55340 |

Product Usage Information**Application**Western Blotting
Immunoprecipitation**Dilution**1:1000
1:50**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

GIMAP5 Antibody recognizes endogenous levels of total GIMAP5 protein. This antibody also recognizes proteins of unknown origin at 12 kDa and 50 kDa.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human GIMAP5 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

GTPase immune-associated proteins (GIMAP), also known as immune-associated nucleotide-binding (IAN) proteins, are evolutionarily conserved GTP-binding proteins involved in lymphocyte development, inflammation, and autoimmune diseases (reviewed in 1,2). Human GTPase IMA family member 5 (GIMAP5, hlan5) is the homolog of the rat lan4 protein that is mutated in severe cases of T-cell lymphopenia and insulin-dependent diabetes in Biobreeding diabetes-prone (BB-DP) rats (3,4). GIMAP5 protein is preferentially expressed in CD4- and CD8-positive T-cells as well as B-cell lymphomas (4). Research studies using GIMAP5-deficient mice show that GIMAP5 protein is critical for survival of peripheral T-cells, hematopoietic stem cells, and progenitor cells (5-7). Additional studies indicate that GIMAP5 deficiency leads to a loss of immunological tolerance (8). Polymorphisms in the human *GIMAP5* gene are associated with systemic lupus erythematosus and type I diabetes (9-11). Potential mechanisms for GIMAP5 control of cell survival include regulation of Bcl-2 family proteins, mitochondrial integrity, lysosomal function, and calcium regulation (5,7, 11-14).

Background References

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4. Zenz, T. et al. (2004) *Genes Immun* 5, 109-16.
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7. Chen, Y. et al. (2011) *J Exp Med* 208, 923-35.
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10. Shin, J.H. et al. (2007) *Genes Immun* 8, 503-12.
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12. Keita, M. et al. (2007) *Biochem Biophys Res Commun* 361, 481-6.
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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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