

GIMAP1 (O-24): sc-133619

BACKGROUND

The GTPase of the immunity-associated protein (GIMAP) family of proteins include seven members that are expressed by genes residing on human chromosome 7. GIMAP proteins have been implicated in the regulation of lymphomyeloid cell survival. GIMAP1 (GTPase, IMAP family member 1), also known as IMAP1 (immunity-associated protein 1), HIMAP1 or IMAP38, is a 306 amino acid single-pass type IV membrane protein of the endoplasmic reticulum (ER) belonging to the GIMAP family. Encoded by a gene located on human chromosome 7, GIMAP1 is expressed primarily in spleen with lower levels found in lymph node. Chromosome 7 houses over 1,000 genes, comprises nearly 5% of the human genome and has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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2. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.
3. Stamm, O., et al. 2002. Human ortholog to mouse gene *imap38* encoding an ER-localizable G protein belongs to a gene family clustered on chromosome 7q32-36. *Gene* 282: 159-167.
4. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608084. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Krücken, J., et al. 2004. Comparative analysis of the human *gimap* gene cluster encoding a novel GTPase family. *Gene* 341: 291-304.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.
7. Saunders, A., et al. 2009. Expression of GIMAP1, a GTPase of the immunity-associated protein family, is not up-regulated in malaria. *Malar. J.* 8: 53.
8. Filen, J.J., et al. 2009. Quantitative proteomics reveals GIMAP family proteins 1 and 4 to be differentially regulated during human T helper cell differentiation. *Mol. Cell. Proteomics* 8: 32-44.

CHROMOSOMAL LOCATION

Genetic locus: GIMAP1 (human) mapping to 7q36.1; *Gimap1* (mouse) mapping to 6 B2.3.

SOURCE

GIMAP1 (O-24) is an affinity purified rabbit polyclonal antibody raised against synthetic GIMAP1 peptide of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

GIMAP1 (O-24) is recommended for detection of GIMAP1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GIMAP1 siRNA (h): sc-89696, GIMAP1 siRNA (m): sc-145398, GIMAP1 shRNA Plasmid (h): sc-89696-SH, GIMAP1 shRNA Plasmid (m): sc-145398-SH, GIMAP1 shRNA (h) Lentiviral Particles: sc-89696-V and GIMAP1 shRNA (m) Lentiviral Particles: sc-145398-V.

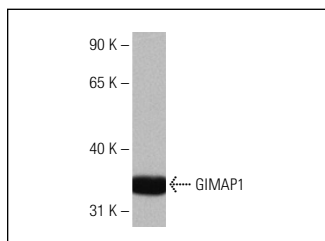
Molecular Weight of GIMAP1: 34 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse spleen extract: sc-2391.

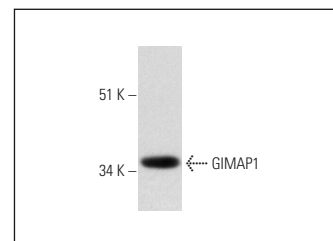
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



GIMAP1 (O-24): sc-133619. Western blot analysis of GIMAP1 expression in HeLa whole cell lysate.



GIMAP1 (O-24): sc-133619. Western blot analysis of GIMAP1 expression in mouse spleen tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.