

# GIMAP4 (N-17): sc-103518

## 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 lymphomye-loid cell survival. GIMAP4 (GTPase IMA family member 4), also known as IMA4 (immunity-associated protein 4) and IAN1 (immunity-associated nucle-otide 1 protein), is a 329 amino acid protein that contains 5 motifs that are conserved in GTP-binding proteins and a C-terminal coil-coiled region that may be responsible for protein-protein interactions. GIMAP4 exhibits intrinsic GTPase activity that is highly dependent on magnesium concentration to bind GDP. Showing differential regulation during T-helper cell differentiation, GIMAP4 appears to regulate the apoptosis of T cells. GIMAP4 is specifically expressed in resting T and B lymphocytes and its protein expression is appreciably decreased upon T or B lymphocyte activation.

## REFERENCES

1. Cambot, M., et al. 2002. Human immune associated nucleotide 1: a member of a new guanosine triphosphatase family expressed in resting T and B cells. *Blood* 99: 3293-3301.
2. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608087. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Schnell, S., et al. 2006. GIMAP4 accelerates T cell death. *Blood* 108: 591-599.
4. Taniwaki, M., et al. 2006. Gene expression profiles of small-cell lung cancers: molecular signatures of lung cancer. *Int. J. Oncol.* 29: 567-575.
5. Nitta, T., et al. 2006. IAN family critically regulates survival and development of T lymphocytes. *PLoS Biol.* 4: e103.
6. Carter, C., et al. 2007. A natural hypomorphic variant of the apoptosis regulator GIMAP4/IAN1. *J. Immunol.* 179: 1784-1795.

## CHROMOSOMAL LOCATION

Genetic locus: GIMAP4 (human) mapping to 7q36.1.

## SOURCE

GIMAP4 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GIMAP4 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103518 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

GIMAP4 (N-17) is recommended for detection of GIMAP4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GIMAP4 siRNA (h): sc-89794, GIMAP4 shRNA Plasmid (h): sc-89794-SH and GIMAP4 shRNA (h) Lentiviral Particles: sc-89794-V.

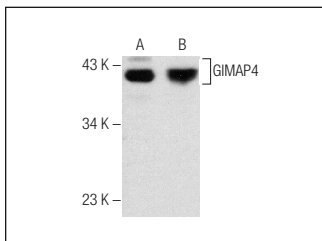
Molecular Weight of GIMAP4: 38 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, human spleen extract: sc-363779 or human PBL whole cell lysate.

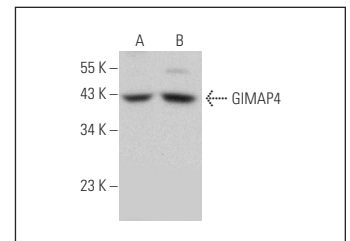
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



GIMAP4 (N-17): sc-103518. Western blot analysis of GIMAP4 expression in Jurkat (A) and human PBL (B) whole cell lysates.



GIMAP4 (N-17): sc-103518. Western blot analysis of GIMAP4 expression in human spleen tissue extract (A) and human PBL whole cell lysate (B).

## RESEARCH USE

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


 MONOS  
Satisfaction  
Guaranteed

Try **GIMAP4 (C-4): sc-515595** or **GIMAP4 (H-8): sc-515241**, our highly recommended monoclonal alternatives to GIMAP4 (N-17).