

GIMAP6 (C-15): sc-247000

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. GIMAP6 (GTPase, IMAP family member 6), also known as IAN6 (immunity-associated nucleotide 6) or IAN2 (immunity-associated nucleotide 2), is a 292 amino acid protein that exists as 2 alternatively spliced isoforms. Highly expressed in placenta, lung, spleen and lymph node, GIMAP6 is found at moderate levels in heart, kidney, digestive tract and thymus. The gene encoding GIMAP6 maps to human chromosome 7, which 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

1. Tsiouras, P., Myers, J.C., Ramirez, F. and Prockop, D.J. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Iwasaki, S., Usami, S., Abe, S., Isoda, H., Watanabe, T. and Hoshino, T. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.
3. Cambot, M., Aresta, S., Kahn-Perlès, B., de Gunzburg, J. and Roméo, P.H. 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.
4. MacMurray, A.J., Moralejo, D.H., Kwitek, A.E., Rutledge, E.A., Van Yserloo, B., Gohlke, P., Speros, S.J., Snyder, B., Schaefer, J., Bieg, S., Jiang, J., Ettinger, R.A., Fuller, J., Daniels, T.L., Pettersson, A., Orlebeke, K., Birren, B., Jacob, H.J., Lander, E.S. and Lernmark, A. 2002. Lymphopenia in the BB rat model of type 1 diabetes is due to a mutation in a novel immune-associated nucleotide (lan)-related gene. *Genome Res.* 12: 1029-1039.
5. Krücken, J., Schroetel, R.M., Müller, I.U., Saidani, N., Marinovski, P., Bente, W.P., Stamm, O. and Wunderlich, F. 2004. Comparative analysis of the human gimap gene cluster encoding a novel GTPase family. *Gene* 341: 291-304.
6. Reiner, O., Sapoznik, S. and Sapir, T. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.

CHROMOSOMAL LOCATION

Genetic locus: GIMAP6 (human) mapping to 7q36.1.

SOURCE

GIMAP6 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GIMAP6 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-247000 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GIMAP6 (C-15) is recommended for detection of GIMAP6 of 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)], 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); non cross-reactive with other GIMAP family members.

Suitable for use as control antibody for GIMAP6 siRNA (h): sc-89898, GIMAP6 shRNA Plasmid (h): sc-89898-SH and GIMAP6 shRNA (h) Lentiviral Particles: sc-89898-V.

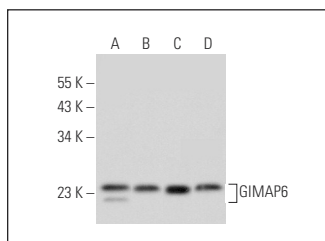
Molecular Weight of GIMAP6 isoforms: 33/24 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

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



GIMAP6 (C-15): sc-247000. Western blot analysis of GIMAP6 expression in MCF7 (A), THP-1 (B), HeLa (C) and K-562 (D) whole cell lysates.

RESEARCH USE

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