

TINAGL1 (S-13): sc-160106

BACKGROUND

TINAGL1 (tubulointerstitial nephritis antigen-like 1), also known as ARG1, LCN7, LIECG3 or TINAGRP, is a 467 amino acid secreted protein that belongs to the peptidase C1 family. TINAGL1 is highly expressed in aorta, heart, placenta and kidney, and moderately expressed in skeletal muscle, pancreas, lung, lymph nodes, adrenal gland, bone marrow and thyroid. Involved in the adrenocortical zonation, TINAGL1 may also play a role in repressing the CYP11B gene expression in adrenocortical cells. Considered a matricellular protein, TINAGL1 interacts with both structural matrix proteins and cell surface receptors. TINAGL1 is a novel component of the Reichert membrane that interacts with laminin-1. It is suggested that TINAGL1 is involved in embryo development during postimplantation. Two isoforms of TINAGL1 exists due to alternative splicing events.

REFERENCES

1. Nelson, T.R., et al. 1995. Identification of a cDNA encoding tubulointerstitial nephritis antigen. *J. Biol. Chem.* 270: 16265-16270.
2. Kanwar, Y.S., et al. 1999. Tubulointerstitial nephritis antigen: an extracellular matrix protein that selectively regulates tubulogenesis vs. glomerulogenesis during mammalian renal development. *Proc. Natl. Acad. Sci. USA* 96: 11323-11328.
3. Ikeda, M., et al. 2000. Molecular cloning, expression, and chromosomal localization of a human tubulointerstitial nephritis antigen. *Biochem. Biophys. Res. Commun.* 268: 225-230.
4. Brömme, N.C., et al. 2000. Cloning, characterization, and expression of the human TIN-ag-RP gene encoding a novel putative extracellular matrix protein. *Biochem. Biophys. Res. Commun.* 271: 474-480.
5. Zhou, B., et al. 2000. Identification of two alternatively spliced forms of human tubulointerstitial nephritis antigen (TIN-Ag). *J. Am. Soc. Nephrol.* 11: 658-668.
6. Wex, T., et al. 2001. TIN-ag-RP, a novel catalytically inactive cathepsin B-related protein with EGF domains, is predominantly expressed in vascular smooth muscle cells. *Biochemistry* 40: 1350-1357.

CHROMOSOMAL LOCATION

Genetic locus: TINAGL1 (human) mapping to 1p35.2; Tinagl (mouse) mapping to 4 D2.2.

SOURCE

TINAGL1 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TINAGL1 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-160106 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TINAGL1 (S-13) is recommended for detection of TINAGL1 isoforms 1 and 2 of mouse, rat and 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).

TINAGL1 (S-13) is also recommended for detection of TINAGL1 isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TINAGL1 siRNA (h): sc-78719, TINAGL1 siRNA (m): sc-154276, TINAGL1 shRNA Plasmid (h): sc-78719-SH, TINAGL1 shRNA Plasmid (m): sc-154276-SH, TINAGL1 shRNA (h) Lentiviral Particles: sc-78719-V and TINAGL1 shRNA (m) Lentiviral Particles: sc-154276-V.

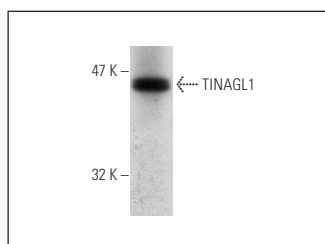
Molecular Weight of TINAGL1 isoforms: 52/30 kDa.

Positive Controls: mouse liver extract: sc-2256, mouse heart extract: sc-2254 or mouse placenta extract: sc-364247.

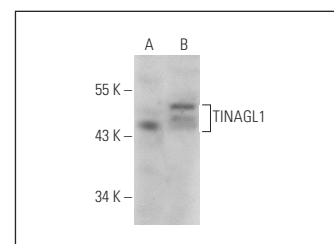
RECOMMENDED SECONDARY REAGENTS

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



TINAGL1 (S-13): sc-160106. Western blot analysis of TINAGL1 expression in mouse liver tissue extract.



TINAGL1 (S-13): sc-160106. Western blot analysis of TINAGL1 expression in mouse heart (A) and mouse placenta (B) tissue extracts.

STORAGE

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

RESEARCH USE

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