SANTA CRUZ BIOTECHNOLOGY, INC.

Tom1 (D-14): sc-86916

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The Power to Question

BACKGROUND

Tom1 (target of Myb 1) is a 492 amino acid cytoplasmic protein that belongs to the Tom1 family. Widely expressed with highest expression in heart, liver, placenta and skeletal muscle, Tom1 is thought to be involved in intracellular trafficking and may be associated with the translocation of ubiquitinated proteins to early endosomes for degradation. Tom1 contains one GAT domain and one VHS domain through which it interacts and complexes with proteins such as Tollip and endofin (also known as SARA). These interactions recruit Tom1 to the endosome, allowing it to participate in the endosomal trafficking of ubiquitin-tagged proteins. Human Tom1 shares 76% similarity with its chicken counterpart and 89% similarity with its mouse counterpart, suggesting a conserved function between species.

REFERENCES

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2. Misra, S., Beach, B.M. and Hurley, J.H. 2000. Structure of the VHS domain of human Tom1 (target of Myb 1): insights into interactions with proteins and membranes. Biochemistry 39: 11282-11290.
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CHROMOSOMAL LOCATION

Genetic locus: TOM1 (human) mapping to 22q12.3; Tom1 (mouse) mapping to 8 C1.

SOURCE

Tom1 (D-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Tom1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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

APPLICATIONS

Tom1 (D-14) is recommended for detection of Tom1 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); non cross-reactive with other Tom family members.

Tom1 (D-14) is also recommended for detection of Tom1 in additional species, including bovine.

Suitable for use as control antibody for Tom1 siRNA (h): sc-76707, Tom1 siRNA (m): sc-154550, Tom1 shRNA Plasmid (h): sc-76707-SH, Tom1 shRNA Plasmid (m): sc-154550-SH, Tom1 shRNA (h) Lentiviral Particles: sc-76707-V and Tom1 shRNA (m) Lentiviral Particles: sc-154550.-V

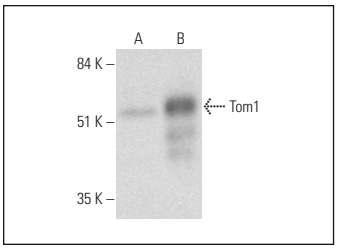
Molecular Weight of Tom1: 60 kDa.

Positive Controls: Tom1 (h): 293T Lysate: sc-116266 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 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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Tom1 (D-14): sc-86916. Western blot analysis of Tom1 expression in non-transfected: sc-117752 (**A**) and human Tom1 transfected: sc-116266 (**B**) 293T whole cell lysates.

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.