

# Tom1L-2 (E-19): sc-69633

## BACKGROUND

Tom1L-2 (target of myb1-like 2), also known as TOM1L2, TOM1-like protein 2 or target of Myb-like protein 2, is a 507 amino acid protein belonging to the TOM1 family. Encoded by a gene that maps to human chromosome 17p11.2, Tom1L-2 is ubiquitously expressed, with higher expression in heart and skeletal muscle, and may play a role in protein transport and cellular trafficking. Existing as four alternatively spliced isoforms, Tom1L-2 interacts with clathrin, SRC and Tollip. Tom1L-2 contains two domains, the GAT domain, which mediates interaction with Tollip, and the VHS domain, both of which are involved in vesicular trafficking. Tom1L-2 associates with SRC when coexpressed in HEK 293 cells. Tom1L-2 also associates with SRC when overexpressed, thereby affecting SFK mitogenic signaling induced by growth factors. Myc expression substantially reverses mitogenic inhibition induced by Tom1L-2. Tom1L-2 may be associated with dementia, SMS (Smith-Magenis syndrome), immunological responses and tumor suppression.

## REFERENCES

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3. Puertollano, R. 2005. Interactions of TOM1L1 with the multivesicular body sorting machinery. *J. Biol. Chem.* 280: 9258-9264.
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5. Franco, M., et al. 2006. The adaptor protein Tom1L1 is a negative regulator of Src mitogenic signaling induced by growth factors. *Mol. Cell. Biol.* 26: 1932-1947.
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7. Girirajan, S., et al. 2008. Tom1L2 hypomorphic mice exhibit increased incidence of infections and tumors and abnormal immunologic response. *Mamm. Genome* 19: 246-262.
8. Reynolds, C.A., et al. 2010. Analysis of lipid pathway genes indicates association of sequence variation near SREBF1/TOM1L2/ATPAF2 with dementia risk. *Hum. Mol. Genet.* 19: 2068-2078.
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## CHROMOSOMAL LOCATION

Genetic locus: TOM1L2 (human) mapping to 17p11.2; Tom1L2 (mouse) mapping to 11 B2.

## SOURCE

Tom1L-2 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Tom1L-2 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-69633 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Tom1L-2 (E-19) is recommended for detection of Tom1L-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Tom1L-2 (E-19) is also recommended for detection of Tom1L-2 in additional species, including equine, canine and avian.

Suitable for use as control antibody for Tom1L-2 siRNA (h): sc-76710, Tom1L-2 siRNA (m): sc-76711, Tom1L-2 shRNA Plasmid (h): sc-76710-SH, Tom1L-2 shRNA Plasmid (m): sc-76711-SH, Tom1L-2 shRNA (h) Lentiviral Particles: sc-76710-V and Tom1L-2 shRNA (m) Lentiviral Particles: sc-76711-V.

Molecular Weight of Tom1L-2: 56 kDa.

## 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) 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.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.