

Tom1L-1 (C-18): sc-69628

BACKGROUND

Tom1L-1 (target of myb1 (chicken)-like 1), also known as SRCASM or OK/KNS-CL.3, is a 476 amino acid Golgi apparatus protein belonging to the TOM1 family and is a member of the multivesicular body (MVB) sorting machinery. Containing a GAT domain and a VHS domain, Tom1L-1 interacts with Fyn, GRB2, PI 3-kinase p85 α and various signaling proteins when phosphorylated. GAT domain of Tom1L1 binds ubiquitin, suggesting participation in the sorting of ubiquitinated proteins into MVBs. Tom1L-1 may act as an adapter protein involved in signaling pathways and may promote Fyn activation, possibly by disrupting intramolecular SH3-dependent interactions. As an interactor and a substrate of Src tyrosine kinases (SFK), Tom1L1 is considered a novel mechanism involved in negative regulation of SFK mitogenic and transforming signals. Tom1L1 modulates SFK partitioning at the plasma membrane and down-regulates Src kinases in an endosomal-dependent manner. It is suggested that Tom1L-1 functions as an anti-oncogene by inhibiting the formation of squamous cell carcinomas in skin.

REFERENCES

1. Seykora, J.T., et al. 2002. Srcasm: a novel Src activating and signaling molecule. *J. Biol. Chem.* 277: 2812-2822.
2. Puertollano, R. 2005. Interactions of TOM1L1 with the multivesicular body sorting machinery. *J. Biol. Chem.* 280: 9258-9264.
3. 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.
4. Li, W., et al. 2007. Srcasm corrects Fyn-induced epidermal hyperplasia by kinase down-regulation. *J. Biol. Chem.* 282: 1161-1169.
5. Collin, G., et al. 2007. The Tom1L1-clathrin heavy chain complex regulates membrane partitioning of the tyrosine kinase Src required for mitogenic and transforming activities. *Mol. Cell. Biol.* 27: 7631-7640.

CHROMOSOMAL LOCATION

Genetic locus: TOM1L1 (human) mapping to 17q22; Tom111 (mouse) mapping to 11 D.

SOURCE

Tom1L-1 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Tom1L-1 of human origin.

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-69628 P, (100 μ g 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

Tom1L-1 (C-18) is recommended for detection of Tom1L-1 of mouse, rat and 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).

Tom1L-1 (C-18) is also recommended for detection of Tom1L-1 in additional species, including canine and bovine.

Suitable for use as control antibody for Tom1L-1 siRNA (h): sc-76708, Tom1L-1 siRNA (m): sc-76709, Tom1L-1 shRNA Plasmid (h): sc-76708-SH, Tom1L-1 shRNA Plasmid (m): sc-76709-SH, Tom1L-1 shRNA (h) Lentiviral Particles: sc-76708-V and Tom1L-1 shRNA (m) Lentiviral Particles: sc-76709-V.

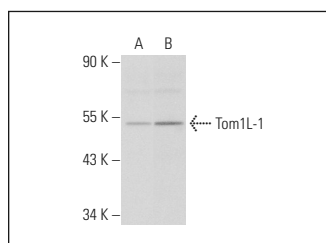
Molecular Weight of Tom1L-1: 53 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136 or HeLa whole cell lysate: sc-2200.

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



Tom1L-1 (C-18): sc-69628. Western blot analysis of Tom1L-1 expression in HEK293 (A) and HeLa (B) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.