

# TID-1<sub>L</sub> (C-15): sc-5873

## BACKGROUND

TID-1 has been identified as a 52 kDa protein, which is the human homologue of the *Drosophila* tumor suppressor protein, Tid56. Both Tid56 and TID-1 belong to the DnaJ family of proteins which are characterized by a highly conserved J domain that influence apoptotic activity. The human TID-1 gene encodes two splice variants, the 43 kDa TID-1<sub>L</sub> and 40 kDa TID-1<sub>S</sub>. TID-1<sub>L</sub> expression increases apoptosis, whereas a mutant J domain suppresses apoptosis. By contrast, TID-1<sub>S</sub> expression, suppresses apoptosis, whereas a mutant J domain increases apoptosis. TID-1<sub>L</sub> and TID-1<sub>S</sub> are localized to the mitochondrial matrix where they regulate apoptotic signal transduction by affecting cytochrome c release and caspase-3 activation. Both TID-1<sub>L</sub> and TID-1<sub>S</sub> are cleaved at amino acid 66 upon entry into the mitochondria, indicating that mature TID-1<sub>L</sub> and TID-1<sub>S</sub> represent cleavage products of cytoplasmic pre-proteins.

## REFERENCES

1. Kurzik-Dumke, U., Gundacker, D., Renthrop, M. and Gateff, E. 1995. Tumor suppression in *Drosophila* is causally related to the function of the lethal<sub>2</sub> tumorous imaginal discs gene, a dnaJ homolog. *Dev. Genet.* 16: 64-76.
2. Schilling, B., De-Medina, T., Syken, J., Vidal, M. and Munger, K. 1998. A novel human DnaJ protein, hTid-1, a homolog of the *Drosophila* tumor suppressor protein Tid56, can interact with the human papillomavirus type 16 E7 oncoprotein. *Virology* 247: 74-85.
3. Bukau, B. and Horwich, A. 1998. The HSP 70 and HSP 60 chaperone machines. *Cell* 92: 351-366.
4. Green, D. and Reed, D. 1998. Mitochondria and apoptosis. *Science* 281: 1309-1312.
5. Syken, J., De-Medina, T. and Munger, K. 1999. TID-1, a human homolog of the *Drosophila* tumor suppressor I<sub>2</sub>tid, encodes two mitochondrial modulators of apoptosis with opposing functions. *Proc. Natl. Acad. Sci. USA* 96: 8499-8504.

## CHROMOSOMAL LOCATION

Genetic locus: TID1 (human) mapping to 16p13.3; Tid1 (mouse) mapping to 16 A1.

## SOURCE

TID-1<sub>L</sub> (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TID-1<sub>L</sub> 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-5873 P, (100 µg 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

TID-1<sub>L</sub> (C-15) is recommended for detection of TID-1<sub>L</sub> of human and, to a lesser extent, mouse and rat 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).

TID-1<sub>L</sub> (C-15) is also recommended for detection of TID-1<sub>L</sub> in additional species, including equine and canine.

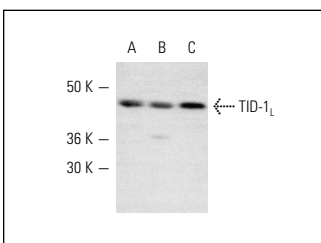
Molecular Weight of TID-1<sub>L</sub>: 43 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

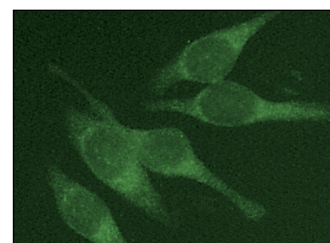
## RECOMMENDED SECONDARY REAGENTS

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



TID-1<sub>L</sub> (C-15): sc-5873. Western blot analysis of TID-1<sub>L</sub> expression in HeLa (A), Jurkat (B) and K-562 (C) whole cell lysates.



TID-1<sub>L</sub> (C-15): sc-5873. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining.

## 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.