

# DONSON (T-18): sc-83240

## BACKGROUND

The smallest of the human chromosomes, 21 makes up about 1.5% of the human genome. Chromosome 21 contains nearly 300 genes and 47 million base pairs. Down syndrome, also known as trisomy 21, is the disease most commonly associated with chromosome 21. The gene encoding DONSON (downstream neighbor of Son) is located on the long arm of chromosome 21 within 65 base pairs of the 3' end of the SON gene, which encodes a nuclear protein that represses Hep B virus promoter activity and transcription of HBV genes. DONSON is a 566 amino acid nuclear protein that has the ability to be phosphorylated and is possibly required for DNA amplification in the ovary. Also, it is probable that DONSON is needed for cell proliferation during development. There are three isoforms of DONSON which exist as a result of alternative splicing events.

## REFERENCES

- Dadrah, K., Mazrani, W., Kessling, A., Lee, J.S. and Buluwela, L. 2000. Organization and conservation of the GART/SON/DONSON locus in mouse and human genomes. *Genomics* 68: 57-62.
- Müller, S., Stanyon, R., Finelli, P., Archidiacono, N. and Wienberg, J. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. *Proc. Natl. Acad. Sci. USA* 97: 206-211.
- Hillman, R.T., Green, R.E. and Brenner, S.E. 2004. An unappreciated role for RNA surveillance. *Genome Biol.* 5: R8.
- Mao, R., Wang, X., Spitznagel, E.L., Frelin, L.P., Ting, J.C., Ding, H., Kim, J.W., Ruczinski, I., Downey, T.J. and Pevsner, J. 2005. Primary and secondary transcriptional effects in the developing human Down syndrome brain and heart. *Genome Biol.* 6: R107.

## CHROMOSOMAL LOCATION

Genetic locus: DONSON (human) mapping to 21q22.11; Donson (mouse) mapping to 16 C3.3.

## SOURCE

DONSON (T-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of DONSON 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, sc-83240 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.

## PROTOCOLS

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

## APPLICATIONS

DONSON (T-18) is recommended for detection of DONSON 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).

DONSON (T-18) is also recommended for detection of DONSON in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for DONSON siRNA (h): sc-91433, DONSON siRNA (m): sc-143144, DONSON shRNA Plasmid (h): sc-91433-SH, DONSON shRNA Plasmid (m): sc-143144-SH, DONSON shRNA (h) Lentiviral Particles: sc-91433-V and DONSON shRNA (m) Lentiviral Particles: sc-143144-V.

Molecular Weight (predicted) of DONSON: 63 kDa.

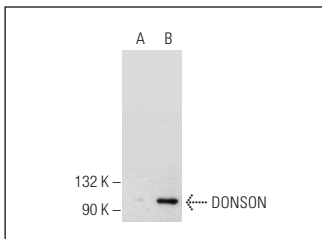
Molecular Weight (observed) of DONSON: 90 kDa.

Positive Controls: DONSON (m): 293T Lysate: sc-119824, mouse embryo extract: sc-364239 or HEK293 whole cell lysate: sc-45136.

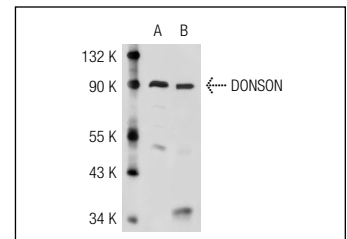
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



DONSON (T-18): sc-83240. Western blot analysis of DONSON expression in non-transfected: sc-117752 (A) and mouse DONSON transfected: sc-119824 (B) 293T whole cell lysates.



DONSON (T-18): sc-83240. Western blot analysis of DONSON expression in HEK293 whole cell lysate (A) and mouse embryo tissue extract (B).

## RESEARCH USE

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