

# ZCSL3 (FL-148): sc-68388

## BACKGROUND

The CSL-type zinc finger-containing proteins (ZCSLs) are homologs of the *S. cerevisiae* diphthamide methyltransferase proteins (DPHs). These enzymes are involved in the synthesis of diphthamide, a protein found on translation elongation factor EF-2 that is the target of bacterial ADP-ribosylating toxins. ZCSL1, ZCSL2 and ZCSL3 (CSL-type zinc finger-containing protein 1, 2 and 3, respectively) are members of the ZCSL family of proteins and each contain one DPH-type zinc finger. ZCSL2, also known as DPH3 or DESR1, is highly expressed in spleen, heart, lung, liver and thymus and is essential in the first step of diphthamide synthesis. Downregulation of ZCSL2 increases the release of proteoglycans, suggesting a possible role in protein secretion. ZCSL1 and ZCSL3, also known as DPH3B and DPH4, respectively, are additional members of the ZCSL family of diphthamide-synthesizing enzymes.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611072. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Liu, S. and Leppla, S.H. 2003. Retroviral insertional mutagenesis identifies a small protein required for synthesis of diphthamide, the target of bacterial ADP-ribosylating toxins. *Mol. Cell* 12: 603-613.
3. Sjölander, M., et al. 2004. Characterisation of an evolutionary conserved protein interacting with the putative guanine nucleotide exchange factor DelGEF and modulating secretion. *Exp. Cell Res.* 294: 68-76.
4. Liu, S., et al. 2004. Identification of the proteins required for biosynthesis of diphthamide, the target of bacterial ADP-ribosylating toxins on translation elongation factor 2. *Mol. Cell. Biol.* 24: 9487-9497.
5. Liu, S., et al. 2006. DPH3, a small protein required for diphthamide biosynthesis, is essential in mouse development. *Mol. Cell. Biol.* 26: 3835-3841.
6. Wada, S., et al. 2006. A genomewide analysis of genes for the heat shock protein 70 chaperone system in the ascidian *Ciona intestinalis*. *Cell Stress Chaperones* 11: 23-33.
7. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.

## CHROMOSOMAL LOCATION

Genetic locus: DPH4 (human) mapping to 11p13; Dph4 (mouse) mapping to 2 E3.

## SOURCE

ZCSL3 (FL-148) is a rabbit polyclonal antibody raised against amino acids 1-148 representing full length ZCSL3 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.

## RESEARCH USE

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

## APPLICATIONS

ZCSL3 (FL-148) is recommended for detection of ZCSL3, also designated CSL-type zinc finger-containing protein 3, 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).

ZCSL3 (FL-148) is also recommended for detection of ZCSL3, also designated CSL-type zinc finger-containing protein 3, in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for ZCSL3 siRNA (h): sc-63237, ZCSL3 siRNA (m): sc-63238, ZCSL3 shRNA Plasmid (h): sc-63237-SH, ZCSL3 shRNA Plasmid (m): sc-63238-SH, ZCSL3 shRNA (h) Lentiviral Particles: sc-63237-V and ZCSL3 shRNA (m) Lentiviral Particles: sc-63238-V.

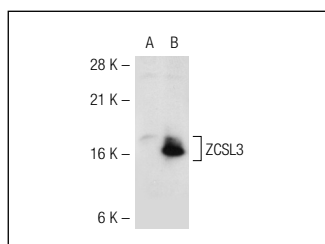
Molecular Weight of ZCSL3: 17 kDa.

Positive Controls: ZCSL3 (h): 293T Lysate: sc-117135.

## 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



ZCSL3 (FL-148): sc-68388. Western blot analysis of ZCSL3 expression in non-transfected: sc-117752 (A) and human ZCSL3 transfected: sc-117135 (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.

## PROTOCOLS

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