

ZCSL3 (E-3): sc-166811

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.

CHROMOSOMAL LOCATION

Genetic locus: DNAJC24 (human) mapping to 11p13.

SOURCE

ZCSL3 (E-3) is a mouse monoclonal antibody raised against amino acids 1-148 representing full length ZCSL3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-166811 X, 200 µg/0.1 ml.

ZCSL3 (E-3) is available conjugated to agarose (sc-166811 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166811 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166811 PE), fluorescein (sc-166811 FITC), Alexa Fluor® 488 (sc-166811 AF488), Alexa Fluor® 546 (sc-166811 AF546), Alexa Fluor® 594 (sc-166811 AF594) or Alexa Fluor® 647 (sc-166811 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166811 AF680) or Alexa Fluor® 790 (sc-166811 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ZCSL3 (E-3) is recommended for detection of ZCSL3 of human origin by Western Blotting (starting dilution 1:100, 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).

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

ZCSL3 (E-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

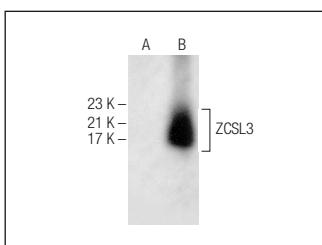
Molecular Weight of ZCSL3: 17 kDa.

Positive Controls: ZCSL3 (h): 293T Lysate: sc-117135 or CCRF-CEM cell lysate: sc-2225.

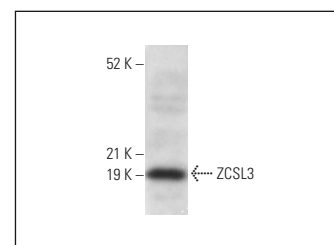
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZCSL3 (E-3): sc-166811. Western blot analysis of ZCSL3 expression in non-transfected: sc-117752 (A) and human ZCSL3 transfected: sc-117135 (B) 293T whole cell lysates.



ZCSL3 (E-3): sc-166811. Western blot analysis of ZCSL3 expression in CCRF-CEM whole cell lysate.

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.

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