

SLD5 (E-14): sc-87433

BACKGROUND

SLD5 (synthetic lethal with dpb11 mutant-5), also known as GINS4 (GINS complex subunit 4), is a 223 amino acid cytoplasmic and nuclear protein belonging to the GINS4/SLD5 family. Significantly up-regulated in aggressive melanomas, SLD5 is a component of the well-conserved evolutionarily GINS complex, a heterotetramer complex that is also composed of Psf1, Psf2 and Psf3 proteins. The GINS complex plays an important role in the initiation of DNA replication and progression of DNA replication forks. A critical component of the GINS core complex assembly, SLD5 co-localizes with Psf1 and together may cooperate in the proliferation of immature cell populations. Psf1 binds to single-stranded DNA and plays a crucial role in complex function.

REFERENCES

- Ueno, M., et al. 2005. Psf1 is essential for early embryogenesis in mice. *Mol. Cell. Biol.* 25: 10528-10532.
- Kong, L., et al. 2006. Identification and characterization of mouse Psf1-binding protein, SLD5. *Biochem. Biophys. Res. Commun.* 339: 1204-1207.
- Boskovic, J., et al. 2007. Molecular architecture of the human GINS complex. *EMBO Rep.* 8: 678-684.
- Kamada, K., et al. 2007. Structure of the human GINS complex and its assembly and functional interface in replication initiation. *Nat. Struct. Mol. Biol.* 14: 388-396.
- Ryu, B., et al. 2007. Comprehensive expression profiling of tumor cell lines identifies molecular signatures of melanoma progression. *PLoS ONE* 2: e594.
- Chang, Y.P., et al. 2007. Crystal structure of the GINS complex and functional insights into its role in DNA replication. *Proc. Natl. Acad. Sci. USA* 104: 12685-12690.
- Nagahama, Y., et al. 2010. Psf3 marks malignant colon cancer and has a role in cancer cell proliferation. *Biochem. Biophys. Res. Commun.* 392: 150-154.
- MacNeill, S.A. 2010. Structure and function of the GINS complex, a key component of the eukaryotic replisome. *Biochem. J.* 425: 489-500.

CHROMOSOMAL LOCATION

Genetic locus: GINS4 (human) mapping to 8p11.21; Gins4 (mouse) mapping to 8 A2.

SOURCE

SLD5 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLD5 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-87433 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SLD5 (E-14) is recommended for detection of SLD5 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).

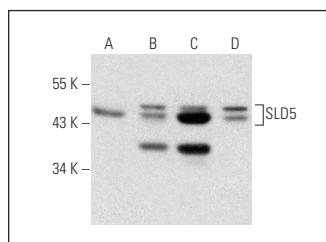
SLD5 (E-14) is also recommended for detection of SLD5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SLD5 siRNA (h): sc-77602, SLD5 siRNA (m): sc-153587, SLD5 shRNA Plasmid (h): sc-77602-SH, SLD5 shRNA Plasmid (m): sc-153587-SH, SLD5 shRNA (h) Lentiviral Particles: sc-77602-V and SLD5 shRNA (m) Lentiviral Particles: sc-153587-V.

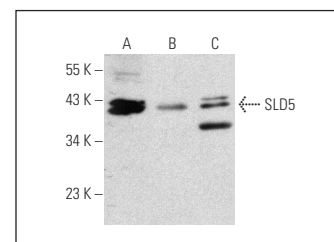
Molecular Weight of SLD5: 34 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, T24 cell lysate: sc-2292 or ES-2 cell lysate: sc-24674.

DATA



SLD5 (E-14): sc-87433. Western blot analysis of SLD5 expression in AML-193 (A), ES-2 (B), T24 (C) and PC-3 (D) whole cell lysates.



SLD5 (E-14): sc-87433. Western blot analysis of SLD5 expression in 293T (A), AML-193 (B) and ES-2 (C) 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.

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.

MONOS
Satisfaction
Guaranteed

Try **SLD5 (D-7): sc-398784**, our highly recommended monoclonal alternative to SLD5 (E-14).