

SLD5 (D-7): sc-398784



The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: GINS4 (human) mapping to 8p11.21.

SOURCE

SLD5 (D-7) is a mouse monoclonal antibody raised against amino acids 1-223 representing full length SLD5 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SLD5 (D-7) is available conjugated to agarose (sc-398784 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398784 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398784 PE), fluorescein (sc-398784 FITC), Alexa Fluor® 488 (sc-398784 AF488), Alexa Fluor® 546 (sc-398784 AF546), Alexa Fluor® 594 (sc-398784 AF594) or Alexa Fluor® 647 (sc-398784 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398784 AF680) or Alexa Fluor® 790 (sc-398784 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SLD5 (D-7) is recommended for detection of SLD5 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 SLD5 siRNA (h): sc-77602, SLD5 shRNA Plasmid (h): sc-77602-SH and SLD5 shRNA (h) Lentiviral Particles: sc-77602-V.

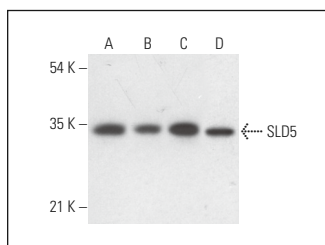
Molecular Weight of SLD5: 34 kDa.

Positive Controls: A-375 cell lysate: sc-3811, AML-193 whole cell lysate: sc-364182 or ES-2 cell lysate: sc-24674.

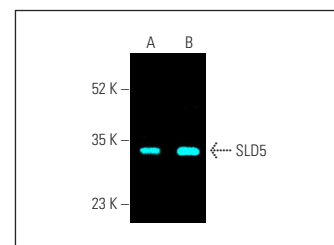
RECOMMENDED SUPPORT REAGENTS

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



SLD5 (D-7): sc-398784. Western blot analysis of SLD5 expression in A-375 (A), T24 (B), AML-193 (C) and ES-2 (D) whole cell lysates.



SLD5 (D-7): sc-398784. Fluorescent western blot analysis of SLD5 expression in ES-2 (A) and HeLa (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG₁ BP-CFL 647: sc-533664.

SELECT PRODUCT CITATIONS

- Chirackal Manavalan, A.P., et al. 2019. CDK12 controls G₁/S progression by regulating RNAPII processivity at core DNA replication genes. *EMBO Rep.* 20: e47592.
- Vipat, S., et al. 2022. The non-catalytic role of DNA polymerase ε in replication initiation in human cells. *Nat. Commun.* 13: 7099.
- Xiang, S., et al. 2023. Identification of selective ATP-competitive CMG helicase inhibitors for cancer intervention that disrupt CMG-replisome function. *Res. Sq.* E-published.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.