

SI-CLP (A-1): sc-514286



The Power to Question

BACKGROUND

SI-CLP (stabilin-1 interacting chitinase-like), also known as CHID1 (chitinase domain-containing protein 1), is a 393 amino acid secreted protein that belongs to the glycosyl hydrolase 18 family. SI-CLP interacts with STAB1 and localizes to lysosome in cells of monocytic, T, B and epithelial origin. SI-CLP is a saccharide- and LPS-binding protein with possible roles in pathogen sensing and endotoxin neutralization. Ligand-binding specificity relates to the length of the oligosaccharides, with preference for chitotetraose (*in vitro*). The SI-CLP protein is up-regulated by IL4/interleukin-4 and dexamethasone in the macrophages, and is also up-regulated by glucocorticoid. Existing as three alternatively spliced isoforms, the SI-CLP gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito, *A. thaliana* and rice, and maps to human chromosome 11p15.5.

REFERENCES

1. Kzhyshkowska, J., et al. 2006. Novel stabilin-1 interacting chitinase-like protein (SI-CLP) is up-regulated in alternatively activated macrophages and secreted via lysosomal pathway. *Blood* 107: 3221-3228.
2. Funkhouser, J.D. and Aronson, N.N. 2007. Chitinase family GH18: evolutionary insights from the genomic history of a diverse protein family. *BMC Evol. Biol.* 7: 96.
3. Zhang, J., et al. 2009. A novel GGA-binding site is required for intracellular sorting mediated by stabilin-1. *Mol. Cell. Biol.* 29: 6097-6105.

CHROMOSOMAL LOCATION

Genetic locus: CHID1 (human) mapping to 11p15.5; Chid1 (mouse) mapping to 7 F5.

SOURCE

SI-CLP (A-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 37-51 within an internal region of SI-CLP 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.

SI-CLP (A-1) is available conjugated to agarose (sc-514286 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514286 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514286 PE), fluorescein (sc-514286 FITC), Alexa Fluor® 488 (sc-514286 AF488), Alexa Fluor® 546 (sc-514286 AF546), Alexa Fluor® 594 (sc-514286 AF594) or Alexa Fluor® 647 (sc-514286 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514286 AF680) or Alexa Fluor® 790 (sc-514286 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514286 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

SI-CLP (A-1) is recommended for detection of SI-CLP of mouse, rat and 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 SI-CLP siRNA (h): sc-96646, SI-CLP siRNA (m): sc-153457, SI-CLP shRNA Plasmid (h): sc-96646-SH, SI-CLP shRNA Plasmid (m): sc-153457-SH, SI-CLP shRNA (h) Lentiviral Particles: sc-96646-V and SI-CLP shRNA (m) Lentiviral Particles: sc-153457-V.

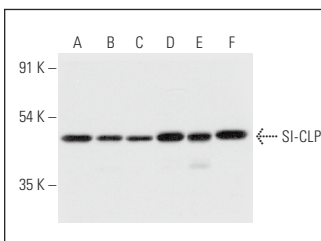
Molecular Weight of SI-CLP isoforms 1/2/3: 45/48/42 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

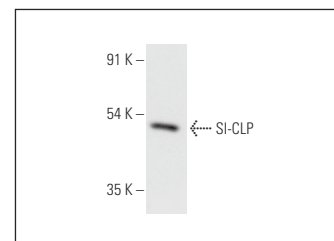
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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 BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SI-CLP (A-1): sc-514286. Western blot analysis of SI-CLP expression in Jurkat (A), HeLa (B), RT-4 (C), U-251-MG (D), Hep G2 (E) and MOLT-4 (F) whole cell lysates.



SI-CLP (A-1): sc-514286. Western blot analysis of SI-CLP expression in human lung tissue extract.

SELECT PRODUCT CITATIONS

1. Li, S.N., et al. 2019. CHID1 positively regulates RLR antiviral signaling by targeting the RIG-I/VISA signalosome. *J. Med. Virol.* 91: 1668-1678.

STORAGE

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

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