

CIZ1 (A-6): sc-393021



The Power to Question

BACKGROUND

CIZ1 (Cip1-interacting zinc finger protein, CDKN1A-interacting zinc finger protein 1) is a 898 amino acid protein encoded by the human gene CIZ1. CIZ1, a nuclear protein, is a member of the matrin three family that contains one matrin-type zinc finger. CIZ1 is composed of two functionally distinct domains: an N-terminal replication domain and a C-terminal nuclear matrix anchor. Patterns of CIZ1 isoform expression have the potential to influence DNA replication, as the exclusion of exon 4 influences the spatial distribution of the CIZ1 protein within the nucleus.

REFERENCES

1. Warder, D.E. and Keherly, M.J. 2003. CIZ1, Cip1 interacting zinc finger protein 1 binds the consensus DNA sequence ARYSR(0-2)YYAC. *J. Biomed. Sci.* 10: 406-417.
2. Miccoli, L., et al. 2003. Selective interactions of human kin17 and RPA proteins with chromatin and the nuclear matrix in a DNA damage- and cell cycle-regulated manner. *Nucleic Acids Res.* 31: 4162-4175.
3. Coverley, D., et al. 2004. CIZ1 promotes mammalian DNA replication. *J. Cell Sci.* 118: 101-112.
4. Anachkova, B., et al. 2005. Nuclear matrix support of DNA replication. *J. Cell. Biochem.* 96: 951-961.
5. Radichev, I., et al. 2005. Initiation of DNA replication at a nuclear matrix-attached chromatin fraction. *J. Cell. Physiol.* 203: 71-77.
6. Ainscough, J.F., et al. 2006. C-terminal domains deliver the DNA replication factor CIZ1 to the nuclear matrix. *J. Cell Sci.* 120: 115-124.
7. Rahman, F.A., et al. 2007. Cancer-associated missplicing of exon 4 influences the subnuclear distribution of the DNA replication factor CIZ1. *Hum. Mutat.* 28: 993-1004.

CHROMOSOMAL LOCATION

Genetic locus: CIZ1 (human) mapping to 9q34.11.

SOURCE

CIZ1 (A-6) is a mouse monoclonal antibody raised against amino acids 521-740 mapping within an internal region of CIZ1 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.

CIZ1 (A-6) is available conjugated to agarose (sc-393021 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393021 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393021 PE), fluorescein (sc-393021 FITC), Alexa Fluor® 488 (sc-393021 AF488), Alexa Fluor® 546 (sc-393021 AF546), Alexa Fluor® 594 (sc-393021 AF594) or Alexa Fluor® 647 (sc-393021 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393021 AF680) or Alexa Fluor® 790 (sc-393021 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CIZ1 (A-6) is recommended for detection of CIZ1 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 CIZ1 siRNA (h): sc-92905, CIZ1 shRNA Plasmid (h): sc-92905-SH and CIZ1 shRNA (h) Lentiviral Particles: sc-92905-V.

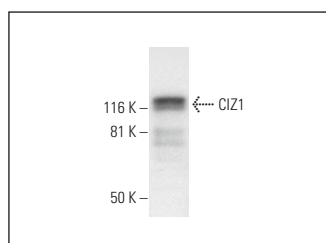
Molecular Weight of CIZ1: 134 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

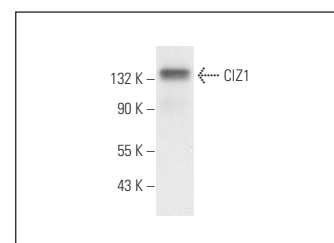
RECOMMENDED SUPPORT REAGENTS

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



CIZ1 (A-6): sc-393021. Western blot analysis of CIZ1 expression in HeLa whole cell lysate.



CIZ1 (A-6): sc-393021. Western blot analysis of CIZ1 expression in K-562 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Valledor, M., et al. 2023. Early chromosome condensation by XIST builds A-repeat RNA density that facilitates gene silencing. *Cell Rep.* 42: 112686.

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.