

Sp1 (E-3): sc-17824

BACKGROUND

Sp1 is a sequence-specific transcription factor that recognizes GGGGCGGGGC and closely related sequences, which are often referred to as GC boxes. Sp1 was initially identified as a HeLa cell-derived factor that selectively activates *in vitro* transcription from the SV40 promoter and binds to the multiple GC boxes in the 21-bp repeated elements in SV40. The sequence specificity of DNA binding is conferred by Zn (II) fingers, whereas a different region of Sp1 appears to regulate the affinity of DNA binding. Sp1 belongs to a subgroup of transcription factors that are phosphorylated upon binding to promoter sequences. Evidence suggests that the early growth response gene, Erg-1 (also known as Zif268 or NGF1-A), may downregulate certain mammalian gene promoters by competing with Sp1 for binding to an overlapping binding motif. The gene encoding human Sp1 maps to chromosome 12q13.13.

CHROMOSOMAL LOCATION

Genetic locus: SP1 (human) mapping to 12q13.13; Sp1 (mouse) mapping to 15 F3.

SOURCE

Sp1 (E-3) is a mouse monoclonal antibody raised against amino acids 121-345 mapping near the N-terminus of Sp1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-17824 X, 200 µg/0.1 ml.

Sp1 (E-3) is available conjugated to agarose (sc-17824 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-17824 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-17824 PE), fluorescein (sc-17824 FITC), Alexa Fluor® 488 (sc-17824 AF488), Alexa Fluor® 546 (sc-17824 AF546), Alexa Fluor® 594 (sc-17824 AF594) or Alexa Fluor® 647 (sc-17824 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-17824 AF680) or Alexa Fluor® 790 (sc-17824 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Sp1 (E-3) is recommended for detection of Sp1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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 Sp1 siRNA (h): sc-29487, Sp1 siRNA (m): sc-29488, Sp1 siRNA (r): sc-61895, Sp1 shRNA Plasmid (h): sc-29487-SH, Sp1 shRNA Plasmid (m): sc-29488-SH, Sp1 shRNA Plasmid (r): sc-61895-SH, Sp1 shRNA (h) Lentiviral Particles: sc-29487-V, Sp1 shRNA (m) Lentiviral Particles: sc-29488-V and Sp1 shRNA (r) Lentiviral Particles: sc-61895-V.

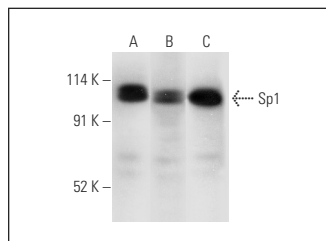
Sp1 (E-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sp1: 106 kDa.

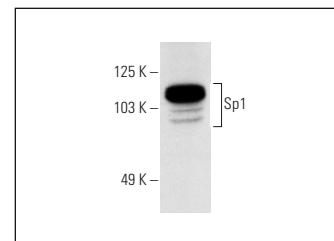
STORAGE

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

DATA



Sp1 (E-3): sc-17824. Western blot analysis of Sp1 expression in K-562 (A) and IMR-32 (B) whole cell lysates and HeLa nuclear extract (C).



Sp1 (E-3): sc-17824. Western blot analysis of Sp1 expression in K-562 nuclear extract (C).

SELECT PRODUCT CITATIONS

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- Bhargavan, B., et al. 2012. LEDGF gene silencing impairs the tumorigenicity of prostate cancer DU145 cells by abating the expression of Hsp27 and activation of the Akt/ERK signaling pathway. *Cell Death Dis.* 3: e316.
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- Loft, A., et al. 2015. Browning of human adipocytes requires KLF11 and reprogramming of PPAR γ superenhancers. *Genes Dev.* 29: 7-22.
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- Vaughan, C.A., et al. 2017. Gain-of-function p53 activates multiple signaling pathways to induce oncogenicity in lung cancer cells. *Mol. Oncol.* 11: 696-711.

RESEARCH USE

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

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