Sp1 (1C6): sc-420

BACKGROUND
Sp1 is a sequence-specific transcription factor that recognizes GGGCGGGGC 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 Zf268 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.

REFERENCES

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

SOURCE
Sp1 (1C6) is a mouse monoclonal antibody raised against amino acids 609-627 mapping to an internal domain of Sp1 of human origin.

PRODUCT
Each vial contains 200 µg IgG, kappa light chain 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-420 X, 200 µg/0.1 ml.

Sp1 (1C6) is available conjugated to agarose (sc-420 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-420 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocerythrin (sc-420 PE), fluorescein (sc-420 FITC), Alexa Fluor® 488 (sc-420 AF488), Alexa Fluor® 546 (sc-420 AF546), Alexa Fluor® 594 (sc-420 AF594) or Alexa Fluor® 647 (sc-420 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FC; to either Alexa Fluor® 680 (sc-420 AF680) or Alexa Fluor® 790 (sc-420 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC.

Blocking peptide available for competition studies, sc-420 P, 100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein.

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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
Sp1 (1C6) is recommended for detection of Sp1 p95 and p106 of mouse 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Sp1 (1C6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sp1: 106 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, MCF7 nuclear extract: sc-2149 or K-562 nuclear extract: sc-2130.

DATA

SELECT PRODUCT CITATIONS

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