**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 \textit{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 12q13.1.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SP1 (human) mapping to 12q13.1.

**SOURCE**

Sp1 (SP15H09) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of Sp1 of human origin.

**PRODUCT**

Each vial contains 100 \mu g IgG1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% BSA.

**APPLICATIONS**

Sp1 (SP15H09) is recommended for detection of Sp1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 \mu g per 100–500 \mu g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 \mu g per 1 \times 10^6 cells).

Suitable for use as control antibody for Sp1 siRNA (h): sc-29487.

Molecular Weight of Sp1: 106 kDa.

Positive Controls: human colon carcinoma, human tonsil or HeLa whole cell lysate: sc-2200.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2010 (dilution range: 1:500-1:1000) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

![Western Blot analysis of human recombinant Sp1 fusion protein.](image1)

![Western Blot analysis of Sp1 expression in HEK293 whole cell lysate.](image2)

**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.

**PROTOCOLS**

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