Active Recombinant Human Sp1 Transcription Factor, GST-tagged

Cat. No. SP1-1159H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
Species	Human
Source	E.coli
Description	Sp1 was first detected in HeLa cells on the basis of its ability to activate the SV40 early promoter transcription. Subsequently it was shown to recognize and bind selectively to a GC-rich consensus sequence (GC-box: GGGCGG or CACCC) that presents in the promoter of several important cellular genes, including SV40 early, HIV-1, PDGF-B etc. Sp1 was the first transcription factor to be cloned and characterized. Analysis of structure and function has revealed that Sp1 can be separated into discrete functional domains. The DNAbinding domain consists of three zinc fingers that specifically bind to the GC-box element. Sp1 contains at least four separate transcriptional activation domains. Two of these domains are glutamine-rich, a wellcharacterized motif found in several other transcription factors. In addition to transcription, Sp1 function has been linked to cell growth, cancer, Huntington disease, and other disorders through transcriptional regulation or specific protein-protein interactions. The function of Sp1 can be regulated by phosphorylation and glycosylation. GST-Sp1was isolated from an*E. coli*strain that carries the coding sequence of the fused protein under the control of a T7 promoter.
Form	Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.

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Purity	> 95% by SDS-PAGE.
Activity	100 ng are sufficient for a protein-protein interaction assay.
Application	GST-Sp1 has been applied in protein-protein interaction assays.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	SP1 Sp1 transcription factor [Homo sapiens]
Synonyms	SP1; Sp1 transcription factor; Sp1 transcription factor; specificity protein 1; TSFP1;Transcription factor Sp1
Gene ID	6667
mRNA Refseq	NM_003109
Protein Refseq	NP_003100
MIM	189906
UniProt ID	P08047
Chromosome Location	12q13.1
Pathway	Huntington"s disease; TGF-beta signaling pathway

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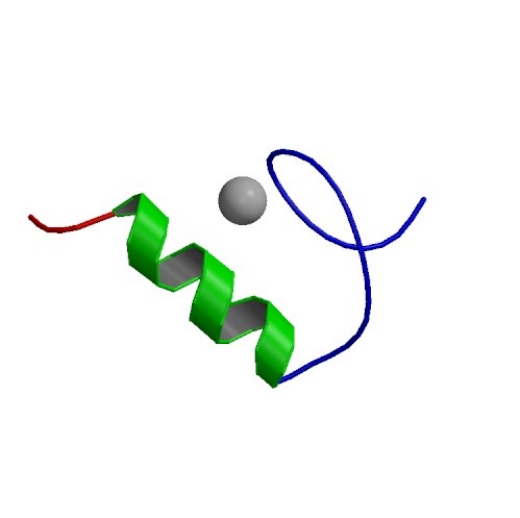
Function	RNA polymerase II transcription factor activity; double-stranded DNA binding; histone deacetylase binding; metal ion binding; promoter binding; protein C-terminus binding; protein homodimerization activity; transcription activator activity; transcription factor activity; zinc ion binding
PDB rendering based on 1sp1.	

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