

**KD-Validated Anti-Sp1 Transcription Factor Mouse Monoclonal Antibody**  
**Mouse monoclonal antibody**  
**Catalog # AGI1991****Specification****KD-Validated Anti-Sp1 Transcription Factor Mouse Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">P08047</a>
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1 kappa
Calculated MW	Predicted, 81 kDa, observed, 90 kDa
Gene Name	KDa
Aliases	SP1
	SP1; Sp1 Transcription Factor;
	Transcription Factor Sp1; Specificity
	Protein 1; TSFP1
Immunogen	Recombinant protein of human SP1

**KD-Validated Anti-Sp1 Transcription Factor Mouse Monoclonal Antibody - Additional Information**

Gene ID	6667
<b>Other Names</b>	
Transcription factor Sp1, SP1, TSFP1	

**KD-Validated Anti-Sp1 Transcription Factor Mouse Monoclonal Antibody - Protein Information****Name** SP1**Synonyms** TSFP1**Function**

Transcription factor that can activate or repress transcription in response to physiological and pathological stimuli. Binds with high affinity to GC-rich motifs and regulates the expression of a large number of genes involved in a variety of processes such as cell growth, apoptosis, differentiation and immune responses. Highly regulated by post-translational modifications (phosphorylations, sumoylation, proteolytic cleavage, glycosylation and acetylation). Also binds the PDGFR-alpha G-box promoter. May have a role in modulating the cellular response to DNA damage. Implicated in chromatin remodeling. Plays an essential role in the regulation of FE65 gene expression. In complex with ATF7IP, maintains telomerase activity in cancer cells by inducing TERT and TERC gene expression. Isoform 3 is a stronger activator of transcription than isoform 1. Positively regulates the transcription of the core clock component BMAL1 (PubMed:<a href="http://www.uniprot.org/citations/10391891" target="\_blank">10391891</a>, PubMed:<a href="http://www.uniprot.org/citations/11371615" target="\_blank">11371615</a>, PubMed:<a href="http://www.uniprot.org/citations/11904305" target="\_blank">11904305</a>, PubMed:<a href="http://www.uniprot.org/citations/14593115" target="\_blank">14593115</a>, PubMed:<a

href="http://www.uniprot.org/citations/16377629" target="\_blank">16377629</a>, PubMed:<a href="http://www.uniprot.org/citations/16478997" target="\_blank">16478997</a>, PubMed:<a href="http://www.uniprot.org/citations/16943418" target="\_blank">16943418</a>, PubMed:<a href="http://www.uniprot.org/citations/17049555" target="\_blank">17049555</a>, PubMed:<a href="http://www.uniprot.org/citations/18171990" target="\_blank">18171990</a>, PubMed:<a href="http://www.uniprot.org/citations/18199680" target="\_blank">18199680</a>, PubMed:<a href="http://www.uniprot.org/citations/18239466" target="\_blank">18239466</a>, PubMed:<a href="http://www.uniprot.org/citations/18513490" target="\_blank">18513490</a>, PubMed:<a href="http://www.uniprot.org/citations/18619531" target="\_blank">18619531</a>, PubMed:<a href="http://www.uniprot.org/citations/19193796" target="\_blank">19193796</a>, PubMed:<a href="http://www.uniprot.org/citations/20091743" target="\_blank">20091743</a>, PubMed:<a href="http://www.uniprot.org/citations/21046154" target="\_blank">21046154</a>, PubMed:<a href="http://www.uniprot.org/citations/21798247" target="\_blank">21798247</a>). Plays a role in the recruitment of SMARCA4/BRG1 on the c-FOS promoter. Plays a role in protecting cells against oxidative stress following brain injury by regulating the expression of RNF112 (By similarity).

#### **Cellular Location**

Nucleus. Cytoplasm. Note=Nuclear location is governed by glycosylated/phosphorylated states. Insulin promotes nuclear location, while glucagon favors cytoplasmic location

#### **Tissue Location**

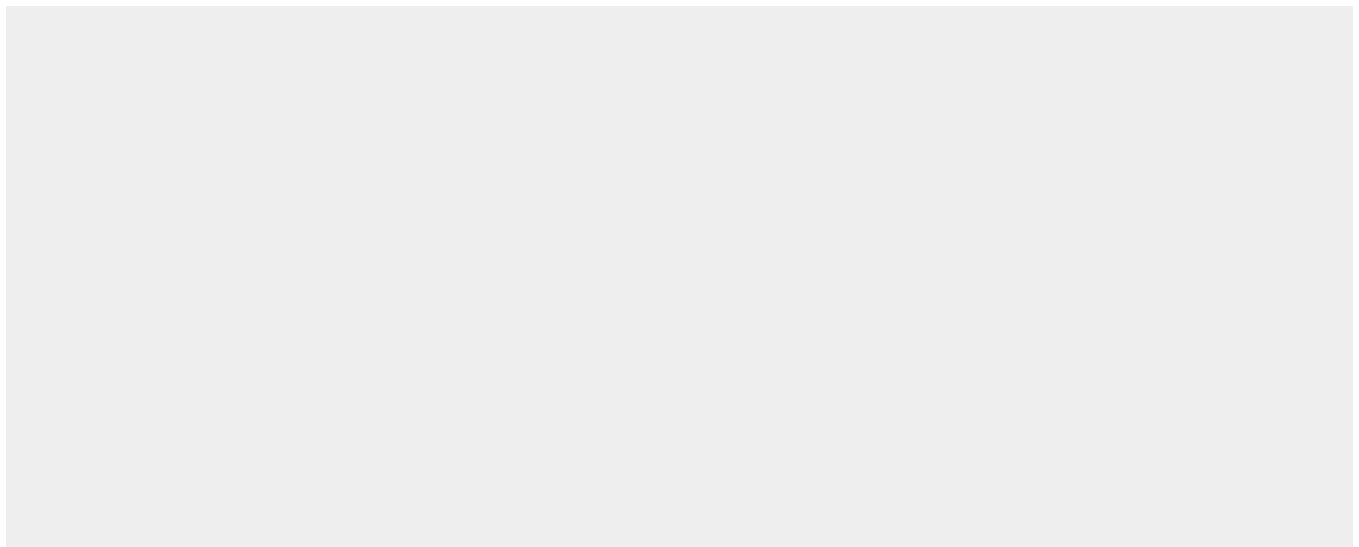
Up-regulated in adenocarcinomas of the stomach (at protein level). Isoform 3 is ubiquitously expressed at low levels

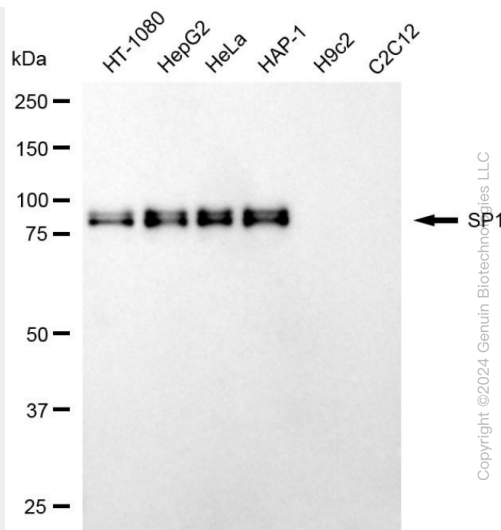
### **KD-Validated Anti-Sp1 Transcription Factor Mouse Monoclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

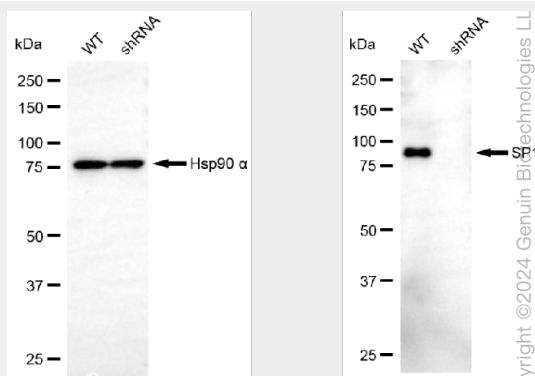
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **KD-Validated Anti-Sp1 Transcription Factor Mouse Monoclonal Antibody - Images**

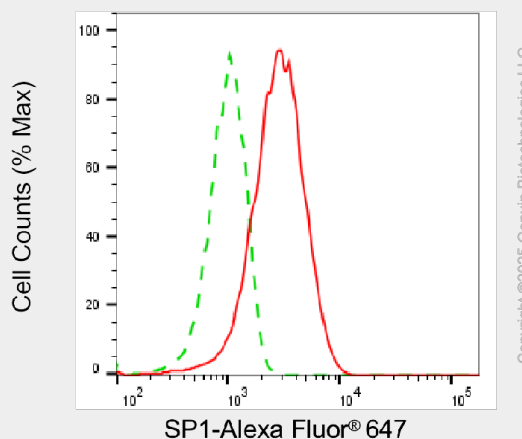




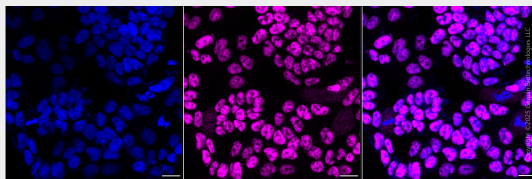
Western blotting analysis using anti-SP1 antibody (Cat#AGI1991). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-SP1 antibody (Cat#AGI1991, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-SP1 antibody (Cat#AGI1991). SP1 expression in wild-type (WT) and SP1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-SP1 antibody (Cat#AGI1991, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Flow cytometric analysis of SP1 expression in HAP-1 cells using anti-SP1 antibody (Cat#AGI1991, 1:2,000). Green, isotype control; red, SP1.



Immunocytochemical staining of HAP1 cells with anti-SP1 antibody (Cat#AGI1991, 1:1,000). Nuclei were stained blue with DAPI; SP1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20  $\mu$ m.