

# SP1 Antibody

Rabbit mAb Catalog # AP91041

#### **Product Information**

**Application** WB, IHC, IF, ICC, IHF

Primary Accession P08047
Reactivity Human
Clonality Monoclonal

Other Names TSFP1; Transcription factor SP1; transcription factor Sp1;

IsotypeRabbit IgGHostRabbitCalculated MW80693

## **Additional Information**

**Dilution** WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200

**Purification** Affinity-chromatography

**Immunogen** A synthesized peptide derived from human SP1

**Description** SP1 is a transcription factor of the Sp1 C2H2-type zinc-finger protein family.

Phosphorylated and activated by MAPK. Dephosphorylation by PTEN inhibits

DNA binding. Binds to p38 in the nucleus.

**Storage Condition and Buffer** Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

### **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: 10391891, PubMed: 11371615,

PubMed:<u>11904305</u>, PubMed:<u>14593115</u>, PubMed:<u>16377629</u>,

PubMed: 16478997, PubMed: 16943418, PubMed: 17049555, PubMed: 18171990, PubMed: 18199680, PubMed: 18239466, PubMed: 18513490, PubMed: 18619531, PubMed: 19193796,

PubMed:20091743, PubMed:21046154, PubMed:21798247). 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

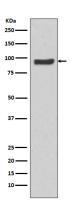
glycosylated/phosphorylated states. Insulin promotes nuclear location, while

glucagon favors cytoplasmic location

**Tissue Location** Up-regulated in adenocarcinomas of the stomach (at protein level). Isoform 3

is ubiquitously expressed at low levels

## **Images**



Western blot analysis of SP1 expression in HeLa cell lysate.

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