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SP1 Antibody (C-term P692)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP11451b

Specification

SP1 Antibody (C-term P692) - Product Information

Application	**WB, IHC-P, FC, IF,E**
Primary Accession	P08047
Other Accession	Q01714, O89090, NP_612482.2
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**80693**
Antigen Region	**677-707**

SP1 Antibody (C-term P692) - Additional Information

Gene ID 6667

Other Names
Transcription factor Sp1, SP1, TSFP1

Target/Specificity
This SP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 677-707 amino acids from the C-terminal region of human SP1.

Dilution
WB~~1:500
IHC-P~~1:50~100
FC~~1:10~50
IF~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SP1 Antibody (C-term P692) is for research use only and not for use in diagnostic or therapeutic procedures.

SP1 Antibody (C-term P692) - 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:11904305, PubMed:14593115, PubMed:16377629, 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

SP1 Antibody (C-term P692) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SP1 Antibody (C-term P692) - Images

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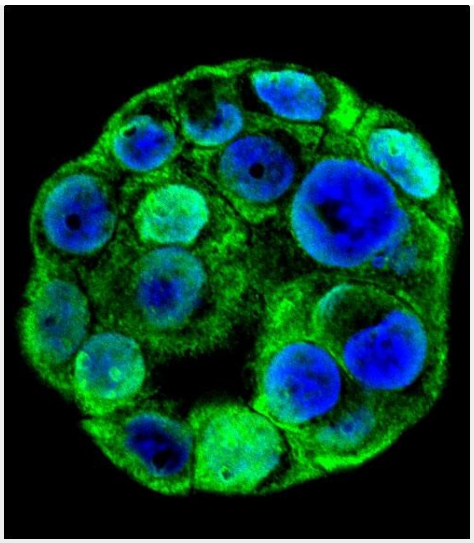
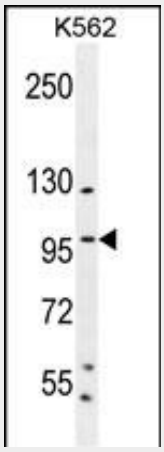
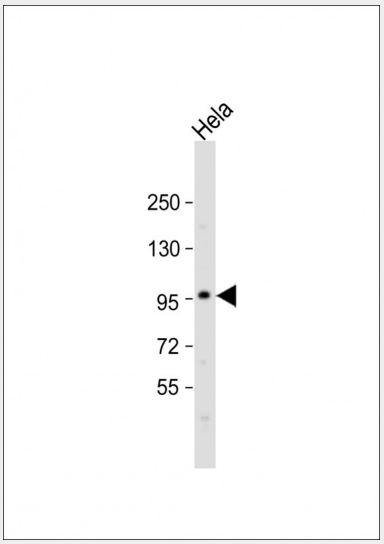


Confocal immunofluorescent analysis of SP1 Antibody (C-term P692)(Cat#AP11451b) with WiDr cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

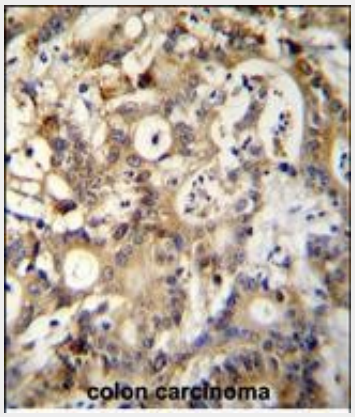


SP1 Antibody (C-term P692) (Cat. #AP11451b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the SP1 antibody detected the SP1 protein (arrow).

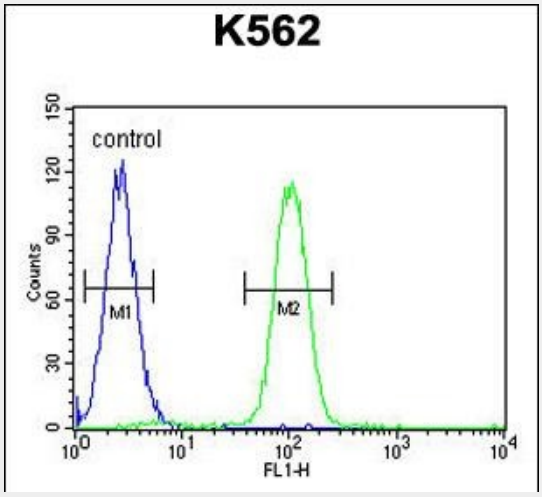


Anti-SP1 Antibody (C-term P692) at 1:500 dilution + Hela whole cell lysate Lysates/proteins at 20

µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 81 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



SP1 Antibody (C-term P692) (Cat. #AP11451b)immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SP1 Antibody (C-term P692) for immunohistochemistry. Clinical relevance has not been evaluated.



SP1 Antibody (C-term P692) (Cat. #AP11451b) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

SP1 Antibody (C-term P692) - Background

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). Binds also the PDGFR-alpha G-box promoter. May have a role in modulating the cellular response to DNA damage. Implicated in chromatin remodeling. Plays a role in the recruitment of SMARCA4/BRG1 on the c-FOS promoter. Plays an essential role in the regulation of FE65 gene expression.

SP1 Antibody (C-term P692) - References

Pan, Q., et al. Biochem. Biophys. Res. Commun. 401(2):306-312(2010)
Mucha, M., et al. J. Neurosci. 30(40):13235-13245(2010)
Imanishi, M., et al. Biochem. Biophys. Res. Commun. 400(4):625-630(2010)

Jutooru, I., et al. J. Biol. Chem. 285(33):25332-25344(2010)
Logotheti, S., et al. FEBS J. 277(14):3014-3027(2010)

SP1 Antibody (C-term P692) - Citations

- cis-Acting elements and trans-acting factors in the transcriptional regulation of raf kinase inhibitory protein expression.