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Anti-SP1 Antibody
Catalog # ABO12751

Specification

Anti-SP1 Antibody - Product Information

Application	**WB**
Primary Accession	P08047
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Transcription factor Sp1(SP1) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SP1 Antibody - Additional Information

Gene ID 6667

Other Names
Transcription factor Sp1, SP1, TSFP1

Calculated MW
80693 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

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

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

Protein Name
Transcription factor Sp1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human SP1 (752-785aa EAICPEGIARLANSGINVMQVADLQSINISGNGF), different from the related mouse and rat sequences by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the Sp1 C2H2-type zinc-finger protein family.

Anti-SP1 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: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
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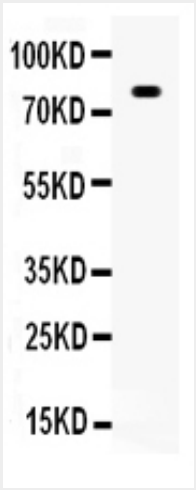
Anti-SP1 Antibody - Protocols

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

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

Anti-SP1 Antibody - Images



Anti-SP1 antibody, ABO12751, Western blottingAll lanes: Anti SP1 (ABO12751) at 0.5ug/mlWB: HELA Whole Cell Lysate at 40ugPredicted bind size: 81KDObserved bind size: 81KD

Anti-SP1 Antibody - Background

SP1(transcription factor Sp1), also known as Specificity Protein 1, is a human transcription factor involved in gene expression in the early development of an organism. It belongs to the Sp/KLF family of transcription factors. The protein is 785 amino acids long, with a molecular weight of 81 kDA. By fluorescence in situ hybridization, Matera and Ward (1993) mapped the SP1 gene to 12q13. By in situ hybridization, Gaynor et al. (1993) concluded that 12q13.1 is the most probable location of the SP1 gene. Segmentation in Drosophila is based on a cascade of hierarchical gene interactions initiated by maternally deposited morphogens that define the spatially restricted domains of gap gene expression at blastoderm. The formation of 7 head segments depends on the function of several genes. Wimmer et al. (1993) showed that one of these genes is the Drosophila homolog of the human transcription factor SP1.