

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 Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human SP1 (752-785aa EAICPEGIARLANSGINVMQVADLQSINISGNF), 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^o Constitution, at 4°C for one month. It^o 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). 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 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

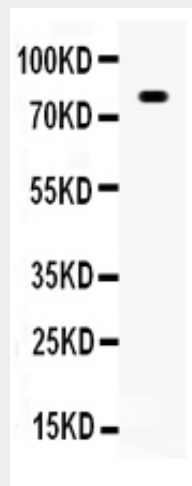
Up-regulated in adenocarcinomas of the stomach (at protein level). Isoform 3 is ubiquitously expressed at low levels

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 Cytometry](#)
- [Cell Culture](#)

Anti-SP1 Antibody - Images



Anti-SP1 antibody, ABO12751, Western blotting All lanes: Anti SP1 (ABO12751) at 0.5ug/ml WB: HELA Whole Cell Lysate at 40ug Predicted bind size: 81KD Observed 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.