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Anti-SP1 Antibody

Catalog # ABO12751

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.

Additional Information

Gene ID	6667
Other Names	Transcription factor Sp1, SP1, TSFP1
Calculated MW	80693
Application Details	Western blot, 0.1-0.5 □g/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. .
Source	Eukaryota
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.

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

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.

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

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