

Anti-Sp3/4 antibody



Description	Rabbit polyclonal to Sp3/4.
Model	STJ95741
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human Sp3/4
Immunogen Region	640-720 aa, C-terminal
Gene ID	6670
Gene Symbol	SP3
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000
Specificity	Sp3/4 Polyclonal Antibody detects endogenous levels of Sp3/4 protein.
Tissue Specificity	Ubiquitously expressed.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Transcription factor Sp3 SPR-2
Molecular Weight	82 kDa
Clonality	Polyclonal
Conjugation	Unconjugated

Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:11208 OMIM:601804
Alternative Names	Transcription factor Sp3 SPR-2
Function	Transcriptional factor that can act as an activator or repressor depending on isoform and/or post-translational modifications. Binds to GT and GC boxes promoter elements. Competes with SP1 for the GC-box promoters. Weak activator of transcription but can activate a number of genes involved in different processes such as cell-cycle regulation, hormone-induction and house-keeping.
Cellular Localization	Nucleus. Nucleus, PML body. Localizes to the nuclear periphery and in nuclear dots when sumoylated. Some localization in PML nuclear bodies.
Post-translational Modifications	Not glycosylated.; Acetylated by histone acetyltransferase p300, deacetylated by HDACs. Acetylation/deacetylation states regulate transcriptional activity. Acetylation appears to activate transcription. Alternate sumoylation and acetylation at Lys-551 also control transcriptional activity. Ceramides can also regulate acetylation/deacetylation events through altering the interaction of HDAC with SP3. In vitro, C(18)-ceramides, but not C(16)-ceramides, increase the interaction of HDAC1 with SP3 and enhance the deacetylation of SP3 and the subsequent repression of the TERT promoter. Sumoylated on all isoforms. Sumoylated on 2 sites in longer isoforms with Lys-551 being the major site. Sumoylation at this site promotes nuclear localization to the nuclear periphery, nuclear dots and PML nuclear bodies. Sumoylation on Lys-551 represses the transactivation activity, except for the largest isoform, L-Sp3, which has little effect on transactivation. Alternate sumoylation and acetylation at Lys-551 also control transcriptional activity.