

## ARG63809 anti-SP1 antibody

Package: 100 μg Store at: -20°C

## Summary

Product Description	Goat Polyclonal antibody recognizes SP1
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Cow, Dog, Pig
Tested Application	WB
Specificity	This antibody is expected to recognise both reported isoforms (NP_612482.2; NP_003100.1).
Host	Goat
Clonality	Polyclonal
Isotype	lgG
Target Name	SP1
Species	Human
Immunogen	CSRIESPNENSNNSQ
Conjugation	Un-conjugated
Alternate Names	Transcription factor Sp1

#### **Application Instructions**

Application table	Application	Dilution	
	WB	0.3 - 1 μg/ml	
Application Note	WB: Recommend incubate at RT for 1h. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrativ		
	should be determined by the scientist.		

# Properties

Liquid
Purified from goat serum by antigen affinity chromatography.
Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
0.02% Sodium azide
0.5% BSA
0.5 mg/ml
For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Database links	GenelD: 6667 Human
	Swiss-port # P08047 Human
Background	The protein encoded by this gene is a zinc finger transcription factor that binds to GC-rich motifs of many promoters. The encoded protein is involved in many cellular processes, including cell differentiation, cell growth, apoptosis, immune responses, response to DNA damage, and chromatin remodeling. Post-translational modifications such as phosphorylation, acetylation, glycosylation, and proteolytic processing significantly affect the activity of this protein, which can be an activator or a repressor. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]
Research Area	Developmental Biology antibody; Gene Regulation antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	81 kDa
ΡΤΜ	Phosphorylated on multiple serine and threonine residues. Phosphorylation is coupled to ubiquitination, sumoylation and proteolytic processing. Phosphorylation on Ser-59 enhances proteolytic cleavage. Phosphorylation on Ser-7 enhances ubiquitination and protein degradation. Hyperphosphorylation on Ser-101 in response to DNA damage has no effect on transcriptional activity. MAPK1/MAPK3-mediated phosphorylation on Thr-453 and Thr-739 enhances VEGF transcription but, represses FGF2-triggered PDGFR-alpha transcription. Also implicated in the repression of RECK by ERB82. Hyperphosphorylated on Thr-278 and Thr-739 during mitosis by MAPK8 shielding SP1 from degradation by the ubiquitin-dependent pathway. Phosphorylated in the zinc-finger domain by calmodulin-activated PKCzeta. Phosphorylation on Ser-641 by PKCzeta is critical for TSA-activated LHR gene expression through release of its repressor, p107. Phosphorylation on Thr-668, Ser-670 and Thr-681 is stimulated by angiotensin II via the AT1 receptor inducing increased binding to the PDGF-D promoter. This phosphorylation is increased in injured artey wall. Ser-59 and Thr-681 can both be dephosphorylated by PP2A during cell-cycle interphase. Dephosphorylation on Ser-59 leads to increased chromatin association during interphase and increases the transcriptional activity. On insulin stimulation, sequentially glycosylated and phosphorylated on several C-terminal serine and threonine residues. Acetylation/deacetylation events affect transcriptional activity. Deacetylation leads to an increase in the expression the 12(s)-lipooxygenase gene though recruitment of p300 to the promoter. Ubiquitinated. Ubiquitination occurs on the C-terminal proteolytically-cleaved peptide and is triggered by phosphorylation. Sumoylation meduates proteolytic cleavage of the N-terminal repressor domain. Sumoylation levels are attenuated during tumorigenesis. Phosphorylation The C-terminal cleaved product is susceptible to degradation. O-glycosylated icontains 8 N-acetylglucosamine side chains. L

# Bioinformation

250kDa 150kDa	ARG63809 anti-SP1 antibody WB image
100kDa 75kDa 50kDa	Western Blot: HeLa lysate (RIPA buffer, 30µg total protein per lane) stained with ARG63809 anti-SP1 antibody at 0.3 µg/ml dilution.
37kDa	
25kDa	
20kDa	
15kDa	
10kDa	