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ProductInformation

ANTI-Sp1
Developed in Rabbit,
Affinity Isolated Antibody

Product Number **S 9809**

Product Description

Anti-Sp1 is developed in rabbit using a synthetic Sp1 peptide: Lys-Ser-Met-Pro-Gly-Leu-Gln-Thr- Ile-Asn-Leu-Ser-Ala-Leu-Gly-Thr-Ser-Gly-Ile-Gln conjugated to KLH with glutaraldehyde as immunogen. The peptide corresponds to amino acid residues 436-454 of human Sp1 with N-terminal added lysine. This Sp1 sequence is identical to the corresponding rat and mouse sequences. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Sp1 recognizes an epitope located on human Sp1. The antibody reacts specifically with Sp1 by immunoblotting (bands at 95 and 106kD). Staining of Sp1 bands is inhibited by the Sp1 peptide (amino acid residues 436-454). Additional lower M.W. bands may be detected

Sp1 (Simian virus 40 protein-1) is a ubiquitous sequence specific nuclear transcription factor that recognizes GGGGCGGGGC and related sequences (GC boxes) on numerous viral and cellular genes.[1,2] The sequence specificity of DNA binding is conferred by three c-terminal Cys2His2-type zinc -fingers and its affinity is regulated by a different region.[3,4] Sp1 is an abundant phosphorylated and O-glycosylated protein that is expressed in most cells in levels dependent on cell type and developmental stage.[5-7] It is a member of a family comprising Sp1, Sp2, Sp3, Sp4 and at least twelve additional Sp-1 – like members.[8] This multigene family is an important regulator of cell cycle, differentiation and development, and apoptosis.[9] Sp1 has been implicated in maintenance of homeostasis and in cellular responsiveness to environmental changes. It appears to be mainly an activation transcription factor. In contrast, Sp-3 may repress Sp1 – mediated transcriptional activation.[10] Regulation of Sp-1 dependent transcription could be effected by changes in Sp1 abundance, DNA binding capacity and methylation status, interaction with Sp-1 itself and several other regulatory proteins, and Sp1 post-translational modification such as phosphorylation and glycosylation.[11-13]

Reagents

Anti Sp1 supplied as an affinity isolated antibody in 10 mM phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 15 mM sodium azide.

Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution.
Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

A minimum working dilution of 1:100 is determined by immunoblotting using nuclear extracts of HeLa human epithelioid carcinoma cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilution by titration test.

References

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