DB052: Sp1 (I18)

Background:

The Sp (specificity protein) family is a family of transcription factors that bind to cis-elements in the promoter regions of various genes. Members of the family bind with varying affinities to sequences designated as 'Sp1 sites' (e.g., GC-boxes, CACCC-boxes, and basic transcription elements) (4,8). In human cells, telomerase activity is tightly regulated by the expression of human telomerase reverse transcriptase (hTERT). Sp1 and Sp3 have been shown to associate with the hTERT promoter, recruiting histone deacetylase for the localized deacetylation of nucleosomal histones and transcriptional silencing of the hTERT gene in normal human somatic cells (3). The role of the Sp family members in many diseases is being investigated. Sp-1 has been discussed in association with diabetic microvasculopathy and Huntington's disease (2,5). It has been suggested that transcription of the Sp3 gene is blocked in immune cells from most patients with multiple sclerosis and that this contributes to the development of central nervous system inflammation in the disease (6). Sp3 has also been shown to be required for proper skeletal ossification (7). Down-regulation of the transcription factor Sp-1 is thought to be involved in the inhibition of strain-induced mitogenesis in human vascular smooth muscle cells by estrogen via an estrogen receptor mediated process (1).

Origin:

Sp1 (I18) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to an internal domain of human Sp1.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG *DB052* Sp1 (I18), in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, *DB052P*, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

Specificity:

DB052 Sp1 (I18) reacts with Sp1of mouse, rat and human origin by western blotting. Western blotting starting dilution: 1:200.
Immunoprecipitation not yet tested. Immunohistochemistry not yet tested.

Storage:

Store this product at 4º C, do not freeze. The product is stable for one year from the date of shipment.

References:

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8. Black AR, Black JD, Azizkhan-Clifford J. Sp1 and kruppel-like factor family of transcription factors in cell growth regulation and cancer. J Cell Physiol 2001 Aug;188(2):143-60

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