BACKGROUND

The Sp transcription factor family includes Sp1, Sp2, Sp3 (SPR-2) and Sp4 (SPR-1). Sp transcription factors share similar structures but do not share similar functions. All four proteins contain a highly conserved DNA-binding domain composed of three zinc fingers at the C-terminus. Sp family members bind the consensus sequence GGGCGGGGC and other closely related sequences which are known as GC boxes. Sp1, Sp3 and Sp4 share a high affinity for GC boxes while Sp2 does not. Sp2 only weakly binds to GT boxes. Sp1, Sp2 and Sp3 are ubiquitously expressed, while Sp4 is abundantly expressed in brain with limited expression in other tissues. Sp1 and Sp3, but not Sp2 or Sp4, interact with E2, a regulatory element for the β4 subunit of neuronal nicotinic acetylcholine receptors. Sp3 is the only Sp member to inhibit Sp1 and Sp4 mediated transcription. Multiple isoforms of Sp3 exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: SP3 (human) mapping to 2q31.1; Sp3 (mouse) mapping to 2C3.

SOURCE

Sp3 (H-225) is a rabbit polyclonal antibody raised against amino acids 126-350 of Sp3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13018 X, 200 µg/0.1 ml.

APPLICATIONS

Sp3 (H-225) is recommended for detection of Sp3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sp3 (H-225) is also recommended for detection of Sp3 in additional species, including canine, bovine, porcine and avian.


Sp3 (H-225) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sp3 isoforms: 78/100/115 kDa.

Positive Controls: Sp3 (m): 293T Lysate: sc-127572, Jurkat whole cell lysate: sc-2204 or HeLa nuclear extract: sc-2120.

STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

SP3 (H-225): sc-13018. Western blot analysis of Sp3 expression in non-transfected: sc-117752 (A) and mouse Sp3 transfected: sc-127572 (B) 293T whole cell lysates and HeLa nuclear extract (C).

SP3 (H-225): sc-13018. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear and cytoplasmic staining of decidua cells.

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures.

Try Sp3 (G-7): sc-365220 or Sp3 (F-7): sc-28305, our highly recommended monoclonal alternatives to Sp3 (H-225).