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 GGCGCGGCCC 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 (D-20) is available as either rabbit (sc-644) or goat (sc-644-G) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-644 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-644 X, 200 µg/0.1 ml; and as fluorescein conjugate for immunofluorescence, sc-644 FITC, 200 µg/1 ml; and as rhodamine conjugate for cytometry flow or immunofluorescence, sc-644 TRITC, 200 µg/1 ml.

APPLICATIONS
Sp3 (D-20) is recommended for detection of Sp3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:10000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (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 (D-20) is also recommended for detection of Sp3 in additional species, including equine, canine, bovine, porcine and avian.


Sp3 (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

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

DATA

SELECT PRODUCT CITATIONS

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