

POU3F4 (C-18): sc-69591

BACKGROUND

The Brn family of transcription factors are found in a highly restricted subset of neurons and are critical to the early embryonic development of the central nervous system. POU3F4 (POU domain, class 3, transcription factor 4), also known as OTF9, DFN3, DFNX2, BRAIN-4 or Brn-4, is a 361 amino acid class III POU domain protein that belongs to the Brn family. Localized to the nucleus, POU3F4 contains one POU-specific domain and one homeobox DNA-binding domain through which it is thought to function as a brain-specific transcription factor that effects neuronal development. Defects in the gene encoding POU3F4 are associated with X-linked deafness type 3 (DFN3), a disorder characterized by both progressive sensorineural deafness and conductive hearing loss caused by stapes gushers (large vestibular aqueducts).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: POU3F4 (human) mapping to Xq21.1; Pou3f4 (mouse) mapping to X E1.

SOURCE

POU3F4 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of POU3F4 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-69591 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-69591 X, 200 µg/0.1 ml.

APPLICATIONS

POU3F4 (C-18) is recommended for detection of POU3F4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

POU3F4 (C-18) is also recommended for detection of POU3F4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for POU3F4 siRNA (h): sc-76201, POU3F4 siRNA (m): sc-76202, POU3F4 shRNA Plasmid (h): sc-76201-SH, POU3F4 shRNA Plasmid (m): sc-76202-SH, POU3F4 shRNA (h) Lentiviral Particles: sc-76201-V and POU3F4 shRNA (m) Lentiviral Particles: sc-76202-V.

POU3F4 (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of POU3F4: 39 kDa.

Molecular Weight (observed) of POU3F4: 42 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.