

# FOXD3 (C-20): sc-27888

## BACKGROUND

Embryonic stem cells require the forkhead transcriptional regulator FOXD3 for survival. Following gastrulation, FOXD3 generally gets downregulated, except in the neural crest. A variety of growth factors induce FOXD3 expression, including FGF8 and SNAIL, maintaining the effected cells in an undifferentiated state. Thus defects in FOXD3 induction may cause premature differentiation and/or migration-associated birth defects.

## REFERENCES

- Hanna, L.A., et al. 2002. Requirement for FOXD3 in maintaining pluripotent cells of the early mouse embryo. *Genes Dev.* 16: 2650-2661.
- Guo, Y., et al. 2002. The embryonic stem cell transcription factors Oct-4 and FOXD3 interact to regulate endodermal-specific promoter expression. *Proc. Natl. Acad. Sci. USA* 99: 3663-3667.

## CHROMOSOMAL LOCATION

Genetic locus: FOXD3 (human) mapping to 1p31.3; Foxd3 (mouse) mapping to 4 C6.

## SOURCE

FOXD3 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FOXD3 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-27888 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-27888 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FOXD3 (C-20) is recommended for detection of FOXD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FOXD3 (C-20) is also recommended for detection of FOXD3 in additional species, including bovine.

Suitable for use as control antibody for FOXD3 siRNA (h): sc-43768, FOXD3 siRNA (m): sc-145222, FOXD3 shRNA Plasmid (h): sc-43768-SH, FOXD3 shRNA Plasmid (m): sc-145222-SH, FOXD3 shRNA (h) Lentiviral Particles: sc-43768-V and FOXD3 shRNA (m) Lentiviral Particles: sc-145222-V.

FOXD3 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

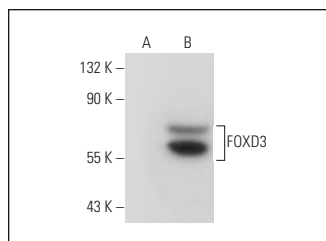
Molecular Weight of FOXD3: 48 kDa.

Positive Controls: FOXD3 (h): 293T Lysate: sc-372301.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



FOXD3 (C-20): sc-27888. Western blot analysis of FOXD3 expression in non-transfected: sc-117752 (A) and human FOXD3 transfected: sc-372301 (B) 293T whole cell lysates.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **FOXD3 (5G9B10): sc-517206**, our highly recommended monoclonal alternative to FOXD3 (C-20).